



# A/UX Reference Summary and Index

Release 3.0

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# A/UX Reference Summary and Index

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## About This Manual

This manual is one of the secondary A/UX reference manuals. It supplements each of the three primary manuals: *A/UX Command Reference*, *A/UX Programmer's Reference*, and *A/UX System Administrator's Reference*. The *A/UX Reference Summary and Index* is designed to help you find information in the other reference volumes.

The reference books cited above, from which *A/UX Reference Summary and Index* is derived, are encyclopedic collections of manual pages, not narrative or tutorial works. They provide complete technical information about all the programs, utilities, and standard file formats included with your A/UX system.

Because all of these reference manuals are not intended to be tutorials or learning guides, they should not be the first A/UX books you read. If you are new to A/UX or are unfamiliar with a specific functional area (such as the Finder), you should first read *A/UX Essentials* and the other A/UX user guides. After you have worked with A/UX, the reference manuals can help you understand new features or refresh your memory about features you already know. This manual, *A/UX Reference Summary and Index*, further assists you by providing several ways to find exactly the information you want.

### Locating information in the reference manuals

You can locate information in the reference manuals with the help of the following sections in each of the primary reference manuals:

- **Table of contents.** Each reference manual contains one general table of contents for the entire manual. Located at the beginning of each new section of manual pages is a detailed table of contents. (If a section must span from one binder to another, a tailored table of contents is provided for each of the subdivisions.) The general table of contents lists the sections covered in the complete manual. The detailed table of contents lists the manual pages contained within one section (or section subdivision) along with a brief description of the A/UX provision that is covered in each manual page.
- **Query commands.** The `man`, `what is`, and `apropos` commands display on-screen all the information contained in a manual page or just the information in the "Name" section of one or more manual pages that

satisfy a search criterion. A section that appears later in this preface, “Using the Online Documentation,” tells you how to use the online versions of the manual pages.

- This book, *A/UX Reference Summary and Index*. This separate manual is considered part of the A/UX set of reference manuals, but it is not a “standard” resource like the other reference materials. Its primary purpose is to help you locate the manual pages you need. From its summaries, you might also occasionally find all the information you required. It contains the following subsections:
  - “Commands by Function.” This subsection classifies the A/UX user and system administrator commands by the general or most important function each performs. The summary gives you a broader view of the commands that are available and the context in which each is often used. Each command is mentioned just once in this listing.
  - “Command Synopses.” This subsection is a compact collection of syntax descriptions for all of the commands in *A/UX Command Reference* and in *A/UX System Administrator’s Reference*. It may help you find the syntax of commands more quickly when the syntax is all you need.
  - “Index.” The index lists key terms associated with A/UX subroutines and commands. These key terms can help you locate the manual page you need as you browse through keyword-related commands and subroutines.

## Using this manual

This manual contains three parts, separated by tab dividers. Each part is to be used differently.

### Commands by function

With A/UX you are confronted with a multitude of commands. To help you sort them out, the first section of this book is a command summary. It groups commands together according to the functions they perform. Each command is mentioned just once in the summary, in accordance with its general, or most important, function. This way you get a bird’s-eye view of the overall command capabilities of A/UX.

This command summary mentions all the user commands in *A/UX Command Reference* and *A/UX System Administrator’s Reference*. The commands are categorized under headings such as “Logging In and Logging Out” and



“Formatting Text Into Pages for Printing.”

To locate the commands for a function or task that interests you, first consult the list of major categories given at the start of the summary section. It lists the principal heads under which commands are grouped. When you find the appropriate major category, turn to the starting page indicated. There you will find lists of A/UX commands for functions and tasks within the major category.

A mention of a command in this summary typically looks like:

```
change login password.....passwd
```

To change a password, you are directed to the `passwd` command. The brief function description (“change login password” in this example) applies to the command (`passwd`).

### **Command synopses**

Most tasks require that you enter information on the command line after the name of the command, such as flag options that modify the behavior of the command. Often you must supply other arguments as well, such as the names of files. Each man page includes a syntax synopsis that helps you construct command lines.

This section gathers into one place all the synopsis sections from sections 1, 1M, 5, 6 and 8 of *A/UX Command Reference*, *A/UX Programmer’s Reference*, and *A/UX System Administrator’s Reference*. It helps you find the syntax of commands quickly and is helpful when the syntax is all you need to see. The synopses are presented in alphabetical sequence by command name. Left and right guide words at the top of each page indicate the first command and the last command covered on that page.

### **Index**

The A/UX references contain a large amount of information, so finding a specific fact in them can be a daunting task. The Index section is designed to help you locate specific man pages by providing cross-references to them from a variety of topic headings.

Most manual pages are indexed under more than one topic heading; for example, `lorder(1)` is included under “archive files,” “sorting,” and “cross-references.” This way you are more likely to find the reference you are looking for on the first try.

The Index section works like an ordinary index, except that a short description is included along with each reference. This description, plus the index topic help you quickly determine whether a reference contains the information you want. Once you determine that you want to view a manual page, the parenthetical section number helps you find the correct book in which to look. Suppose you have located a reference to `adduser(1M)`. The sections that appear in each of the reference manuals are listed on the book front cover and spine. Section 1M appears on the spine of *A/UX System Administrator's Reference*. Accordingly, that is where you can find the full text of `adduser(1M)`. Also, see "Using the Online Documentation," later in the preface.

The key terms in this index were constructed by examining the meaning and usage of the A/UX manual pages. They are designed to be more discriminating and easier to use than the traditional permuted index, which mechanically lists keywords found in the manual page NAME sections.

### **Visual conventions for the A/UX reference manuals**

A/UX books follow specific styling conventions. For example, words that require special emphasis appear in specific fonts or styles. This section describes the conventions used in all the A/UX reference books.

#### **The Courier font**

Throughout the A/UX reference manuals, words that appear on the screen or that you must type exactly as shown are in the Courier font.

Here's an example:

Type `date` on the command line and press RETURN.

This instruction means that you should type the word "date" exactly as shown, then press the RETURN key.

After you press RETURN, text such as this will appear on the screen:

```
Fri Nov  1 11:15:43 PST 1991
```

In this case, the Courier font is used to represent exactly what appears on the screen.

All A/UX manual page names are shown in the Courier font. For example, `ls(1)` indicates that `ls` is the name of a manual page that occurs in Section 1. More information about the use of the Courier font in manual pages is given in "Styling of A/UX Command Elements" later in this preface.

## Font styles

Italics are used to indicate that a word or set of words is a placeholder for part of a command line. Here is a sample command syntax illustration:

```
cat file
```

The italicized term *file* is a placeholder for the name of a file. If you wanted to display the contents of a file named `Elvis`, you would type the filename `Elvis` in place of *file*. In other words, you would enter

```
cat Elvis
```

## Styling of A/UX command elements

A/UX commands are entered in accordance with their command syntax. A typical A/UX command line includes the command name first, followed by options and arguments. For example, here is an illustration of the syntax for the `wc` command:

```
wc [-l] [-w] file...
```

In this syntax illustration, `wc` is the command, `-l` and `-w` are options, and *file* is an argument.

A “command option” modifies the action of a command, often by changing its mode of operation (such as read mode or write mode).

An “argument” is any element that follows the command name. Command arguments other than command options typically specify the objects upon which the command should act. You often supply the names of files that you want a command to process, so *file* is frequently the last element in syntax illustrations.

Brackets and ellipsis characters in a syntax illustration should be considered part of a syntax notation. This is represented by the use of body font instead of Courier for these characters. Their font treatment tells you that you are not supposed to type these characters as part of the command line. Their meaning as a syntax notation is described next.

The brackets enclose an optional item or a group of optional items. If an optional item has constituent parts that are also optional, these parts are themselves enclosed in brackets, as in this syntax illustration:

```
lpr [-i [numcols]]
```

This syntax illustration shows that the indent (`-i`) command option can be followed by the number of columns to indent the printed page. It also shows that

you can omit the number of columns; if you do, the `lpr` command uses the default indent value.

An ellipsis (...) follows an argument that can be repeated any number of times on a command line. If the ellipsis follows a bracketed group of items, the group of items can be repeated any number of times on the command line.

Mutually-exclusive command options cannot be specified within the same command-line request. For commands that have mutually-exclusive options, two or more command-line syntaxes are offered:

```
pax -r[other-option-for-archive-reading]...
pax -w[other-option-for-archive-writing]...
```

Outside of syntax illustrations, command options are shown with a leading hyphen also in the Courier font. When you supply multiple command options in an actual command line, only one leading hyphen is normally required. For example the following command line contains two options, `-r` and `-f`:

```
pax -rf /dev/rfloppy0
```

In the example, the `-f` option (pronounced ‘minus f’) is entered without its own hyphen, even though when mentioned in running text it appears with a leading hyphen.

## Using the online documentation

In addition to the paper documentation in the reference manuals, A/UX provides several ways to search and read the contents of each manual page from your A/UX system. An advantage to the online version of the documentation is that the computer performs the work of filtering out (or skipping) all the manual pages other than the one you specifically queried. The only prerequisite is that you already know its name (or a proper search string). However, you don’t have to know how manual pages are organized by section numbers and by book titles.

To display a manual page on your screen, enter the `man` command followed by the name of the manual page you want to see. For example, to display the manual page for the `cat` command, including its description, syntax, options, and other pertinent information, you would enter

```
man cat
```

After the first screen of the text of a manual page appears, you can display subsequent screens of the text with each press of the SPACE BAR, until you reach

the end of the man page. To display subsequent text one line at a time, press RETURN instead of the SPACE BAR. By pressing Q, you can quit the man command before viewing all of the manual page.

To display the descriptive information in the “Name” section of any manual page, enter the `what is` command followed by the name of the provision you want described. In the following example, the command prompt is the percent sign, and the provision that is being queried is the `ls` command:

```
% what is ls
ls(1)           - lists the contents of a directory
% █
```

To display a list of all manual pages whose “Name” sections contain a given keyword or string, enter the `apropos` command followed by a search word or search string enclosed in double quote characters. The names of A/UX provisions are listed on separate lines along with the descriptive information in the “Name” section of the manual page that describes those provisions. Sometimes several A/UX provisions are listed on the same line. In those cases, several A/UX provisions are described on a single manual page. You can tell which of these names is the formal name for the manual page because it will be followed by parentheses and an enclosed section number. In the following example, the command prompt is the percent sign, and the A/UX provisions that are queried are those which are described in manual pages whose “Name” section contains the word “tape”:

```
% apropos tape
mt(1)           - magnetic tape manipulating program
frec(1M)        - recover files from a backup tape
mtio(7)        - interface conventions for magnetic tape devices
tc(7)          - Apple Tape Backup 40SC device driver
% █
```

These documentation query commands are described more fully in the manual pages `man(1)`, `what is(1)`, and `apropos(1)` in *A/UX Command Reference*.

## For more information

To find out where you need to go for more information about how to use A/UX, see *Road Map to A/UX*. This guide contains descriptions of each A/UX guide and ordering information for all the guides in the A/UX documentation suite.

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## Commands by Function

This section lists all A/UX commands categorized by the functions they perform. The major functional categories appear in bold type. These major categories begin on the pages shown following:

<b>Accessing the System and Its Help Resources</b> .....	4
<b>Managing Files and Directories</b> .....	6
<b>Controlling the User Interface</b> .....	10
<b>Controlling How Commands Are Run</b> .....	11
<b>Managing Processes as They Run</b> .....	13
<b>Generating Command Lines</b> .....	13
<b>Communicating</b> .....	14
<b>Playing Games</b> .....	16
<b>Processing Text as Records Within a Database</b> .....	17
<b>Processing Structured or Unstructured Text</b> .....	18
<b>Processing Text to Produce Printed Documents</b> .....	20
<b>Processing Plotter Drawings</b> .....	23
<b>Writing Shell Programs</b> .....	24
<b>Programming</b> .....	25
<b>Administering Your System</b> .....	28

Each category includes one or more subcategories. While the category appears in bold text, the subcategory appears in plain text. Under each subcategory are the related functions.

To find a command that can count words in a file, you might follow this sequence of actions:

1. Locate “Processing Structured or Unstructured Text” (page 18) as the most appropriate main category.
2. Turn to page 18 and browse through the pages following until you locate “Report Occurrences of Words and Letters” as the next most appropriate subcategory.
3. Locate the phrase *word count* as the function desired.
4. Locate the command `wc` across from the phrase *word count*.

Once you have found a command likely to perform a desired function, you can get further information about that command by referring to the *A/UX Command Reference* and *A/UX System Administrator’s Reference*. An even faster way to

locate information is to use the online help provisions of A/UX. (See “Using the Online Documentation” in the preface.)

Normally, the names of manual page subdocuments are the same as the names of the commands they describe. This is not true when a manual page subdocument describes more than one command. An example is `rmdir`, which is described on the `rm(1)` manual page. You can use the `whatis` command to help you locate the actual manual page for more information about a given command. Another way to locate the `rm(1)` manual page for commands like `rmdir` is to enter `rmdir` as the argument to the `man` command. The `man` command automatically locates the `rm(1)` manual page and displays it.

The categories are listed in no special order. Generally, the order of subcategories is alphabetical. The order of command names and descriptions is generally alphabetical as well, based on the command name.

The uses of some commands fit several categories. For example, the command fits equally well within two categories, “Performing Arithmetic Calculations” and “Interpreting Command Lines.” To make the summary brief, however, each command is listed under only one classification. Note also that rarely-used commands are interspersed among frequently-used commands, falsely suggesting that each command is equally useful.

Also, the manual pages cited for a specific category may not provide an adequate overview of a given topic. For example, the cited commands for “Directing Data To and From Files,” `tee` and `cat`, do not provide adequate guidance about input and output redirection. Redirection is best described in other A/UX books, such as *A/UX Shells and Shell Programming*. (The following manual pages from the *A/UX Command Reference* also describe input and output redirection: `sh(1)`, `csh(1)`, and `ksh(1)`.)

Finally, certain categories are necessarily nondescript, such as “Using Devices.” Since you are using devices whenever you use A/UX, all commands could have been placed in this category. However, only those commands more concerned with manipulating devices than manipulating files or data were placed in this category. The chief concern for the choice of category titles was finding titles that are clear when considered with the other categories.

Accordingly, the category titles taken by themselves often fail to describe precise sets of commands.

If you are confident using Macintosh applications but uncertain about the added value that A/UX can provide, the following categories are likely to interest you.

**Accessing the System and Its Help Resources.** This topic includes many subcategories of general interest and commands that are likely to be used with medium frequency. Of these, the most frequently used commands are the commands used to obtain online help.

**Managing Files and Directories.** This topic includes the most frequently used commands in the system. When managing large numbers of folders and files,



A/UX command lines may be preferable to Finder operations. For example, command lines can be used to manipulate files in a nested folder without having to use a prior operation to “open” the nested folder.

**Controlling How Commands Are Run.** Among the commands listed are those that allow you to schedule commands to run in a recurring fashion, or in a time-delayed fashion.

**Communicating.** This topic includes commands that support the popular UNIX utility for electronic mail. To use the mail facilities of A/UX optimally, you could even create customized scripts that automatically start up according to specific dates and times. (See “Writing Shell Programs” and “Controlling how Commands are Run.”)

**Processing Structured or Unstructured Text.** The editors are frequently used to edit database style tables, such as `/etc/passwd`, as well as to edit document text. `TextEditor` is the editor of choice if you wish to take advantage of your Macintosh skills. The `grep` command is a frequently used A/UX utility that displays lines in any text file containing a string or substring you specify.

**Processing Text Records.** Within certain limits, the commands listed here can process information from files generated with Macintosh spreadsheet and database applications once they are saved as text. Another powerful provision, but one that is categorized differently from these, is `awk`. It is a high-level programming language used to write programs that process text or compile custom reports from field-structured text files.

**Writing Shell Programs.** The A/UX shell programming languages are frequently used to automate recurring tasks or to bind several related actions into an easily-invoked command script. The shells allow users to easily create new A/UX functions, extending the repertoire of existing programs in ways that fit the needs of a particular site. A number of the supplied A/UX programs are actually shell scripts, so they can be readily copied and customized.

## Accessing the system and its help resources

### Finding out about your network

displays a list of the active users from all of the systems on the  
local network ..... rwho  
displays the host status of local machines ..... ruptime  
produces a login list for local machines (RPC version) ..... rusers

### Finding out about your system

displays a summary of the current system activity ..... w  
displays group memberships ..... groups  
displays identification information about the current system ..... uname  
displays information about the users on a system ..... finger  
displays login and logout times for each user of the system ..... last  
displays the system page size ..... pagesize  
displays user and group IDs and names ..... id  
provide truth values about processor type ..... machid  
reports a list of the users who are logged on to the system ..... users  
reports how long system has been up ..... uptime

### Finding out about your session

displays the value of variables set in the current  
environment ..... printenv  
gets the login name ..... logname  
obtains the device filename for the terminal or CommandShell  
window where it is invoked ..... tty  
prints the name of the working directory ..... pwd  
reports process status ..... ps

## Getting online help

displays the named manual page entries ..... man  
informs you of the current system activity ..... whodo  
locates commands by keyword ..... apropos  
prints effective current user ID ..... whoami  
reports a brief description for the manual page entry specified .... whatis  
reports the directory path to a file by interpreting PATH and  
alias settings ..... which  
reports the locations of the source, binary, and online help  
files for a specified command ..... whereis  
reports users who are currently logged in to the system ..... who

## Logging in and logging out

changes the login password ..... passwd  
logs in to a remote system ..... rlogin  
logs you into a new group ..... newgrp  
signs you on a terminal session ..... login

## Performing arithmetic calculations

desk calculator ..... dc  
prints the prime factor of a given number ..... factor  
processes an arbitrary-precision arithmetic language ..... bc  
rescales quantities according to a the unit of measure specified ..... units

## Using devices

blocks data to 8K for direct input to /dev/rmt/tcx ..... tcb  
clears the terminal screen ..... clear  
ejects a diskette from the drive ..... eject  
manipulates magnetic tape media ..... mt  
prepares data to be printed on the Apple ImageWriter II printer ..... iw2  
sets the modes for a terminal ..... stty  
sets the tab stops on a terminal ..... tabs

## Using time and date utilities

displays a calendar ..... cal  
displays and sets the date ..... date  
provides a reminder service ..... calendar  
reminds you when you have to leave ..... leave

## Managing files and directories

### Changing file attributes

change the owner or group of a file ..... chgrp  
change the owner or group of a file ..... chown  
changes the permissions of a file ..... chmod  
sets attributes for Macintosh files, such as file type and  
creator ..... setfile  
updates access and modification times of a file ..... touch

### Comparing files and directories

compares the contents of two directories ..... dircmp  
compares the difference between two large files that are too big  
for diff to handle ..... bdiff  
compares three versions of a file ..... diff3  
compares two files or directories for any differences ..... diff  
compares two files ..... cmp  
merges three files into one ..... merge  
reports differences between two files or directories ..... ucbdiff  
reports side-by-side differences between two files in a side-by-  
side format ..... sdiff  
reports the differences between three files ..... ucbdiff3  
sums and counts the characters within the files of the given  
directories ..... sumdir

## Compressing and encrypting files

compress and expand files .....	pack
compress and expand files .....	pcat
compress and expand files .....	unpack
compress and uncompress files .....	ccat
compress and uncompress files .....	compact
compress and uncompress files .....	uncompact
compress files and directories as well as expand them; support concatenation, browsing, and file- comparing operations upon compressed files .....	compress
compress files and directories as well as expand them; support concatenation, browsing, and file- comparing operations upon compressed files .....	compressdir
compress files and directories as well as expand them; support concatenation, browsing, and file- comparing operations upon compressed files .....	uncompress
compress files and directories as well as expand them; support concatenation, browsing, and file-comparing operations upon compressed files .....	uncompressdir
compress files and directories as well as expand them; support concatenation, browsing, and file-comparing operations upon compressed files .....	zcat
compress files and directories as well as expand them; support concatenation, browsing, and file-comparing operations upon compressed files .....	zcmp
compress files and directories as well as expand them; support concatenation, browsing, and file-comparing operations upon compressed files .....	zdiff
compress files and directories as well as expand them; support concatenation, browsing, and file-comparing operations upon compressed files .....	zmore
encodes and decodes passwords .....	crypt

## Copying files and directories

converts a file in one storage format to a different storage format ... `fcvnt`  
converts and copies a file ..... `dd`  
copies files between two systems ..... `rcp`  
copies files to or from a `cpio` archive ..... `cpio`  
copies files to or from a `tar` archive ..... `tar`  
copies files to or from a `tp` archive ..... `tp`  
copies files to or from an archive in an IEEE format ..... `pax`  
copies files ..... `cp`  
makes links ..... `ln`  
splits a file into a specified number of pieces ..... `split`  
splits files into sections ..... `csplit`

## Creating, renaming, and removing files and directories

creates a directory ..... `mkdir`  
moves or renames files ..... `mv`  
remove files or directories ..... `rm`  
remove files or directories ..... `rmdir`

## Directing data to and from files

catenates and displays the contents of files ..... `cat`  
transcribes data ..... `tee`

## Displaying filenames and file status

calculates a checksum ..... `sum`  
determines the type of a file ..... `file`  
lists the contents of a directory ..... `ls`  
reports version number of files ..... `version`

## Finding files

finds files ..... find

## Finding out about your file system

reports the used and unused storage capacity for a file system ..... df

summarizes disk usage ..... du

## Looking at files

displays the first few lines of a file ..... head

displays the last part of a file ..... tail

show the contents of a file in display-size chunks ..... more

show the contents of a file in display-size chunks ..... page

shows the contents of a file in display-size chunks ..... pg

## Printing files

cancel print requests spooled through the lp command ..... cancel

queries the print spooler for progress information ..... lpq

removes jobs from the line printer spooling queue for a Berkeley  
file system (4.2) ..... lprm

spools print requests to printers ..... lp

spools print requests to printers ..... lpr

## Controlling the user interface

### Choosing session preferences

changes the default login shell ..... chsh  
logs you in to A/UX by using a graphical user interface ..... Login  
manages command-interpretation windows and  
moderates access to the A/UX console  
window ..... CommandShell

### Customizing the Macintosh system for one user account

create a personal System Folder ..... systemfolder

### Interpreting command lines

discontinues a csh login session (a function built into ksh) ..... logout  
discontinues command interpretation in the current shell (as a  
function built into the shell) ..... exit  
evaluates its arguments as a command line a specified number  
of times (as a function built into the shell) ..... repeat  
evaluates its arguments as a command line and then exits shell (a  
function built-into the shell) ..... exec  
evaluates its arguments as a command line as a function built into  
the shell ..... eval  
manages the layering of multiple shells ..... sh1  
runs the Bourne shell ..... sh  
runs the C shell, a command interpreter with C-like syntax ..... csh  
runs the Korn shell, an enhanced command interpreter that is  
backward-compatible with the Bourne shell (sh)  
..... ksh

### Launching Macintosh applications

runs a Macintosh binary application in A/UX ..... launch



## Controlling how commands are run

### Delaying a command or part of a shell script

suspends the system for a specified interval of time ..... sleep

### Establishing the environment for a Macintosh application

changes or displays the fields of the 'SIZE' resource of  
a file ..... changesize

convert between Macintosh encoding and International  
Standards Organization (ISO) encoding ..... isotomac

convert between Macintosh encoding and International  
Standards Organization (ISO) encoding ..... mactois

### Establishing the execution environment for a command

..... ulimit

changes the current working directory as a function built into the  
shell ..... cd

changes the root directory for a command ..... chroot

displays or resets default file permissions as a function built into  
the shell ..... umask

executes a command at low priority ..... nice

generates  $\gamma$  entries in response to requests for input ..... yes

invokes to a shell on a remote system ..... remsh

runs a command so that it can continue to run even after your  
session has ended ..... nohup

sets the environment for command execution ..... env

### Interpreting command lines while maintaining an audit trail

starts a shell that records terminal input and output ..... script

## Setting a time at which to run a command

aids in the use of the `cron` process scheduling program..... `crontab`  
run commands at a later time ..... `at`  
run commands at a later time..... `batch`  
runs the clock daemon ..... `cron`

## Managing processes as they run

### Signaling and terminating processes

removes interprocess communications facilities ..... ipcrm  
terminates a process ..... kill

### Timing the duration of a process

prints the elapsed time during the execution of a command ..... time  
reports the elapsed, user, and system time during the execution  
of a command ..... timex

## Generating command lines

### Constructing and executing command lines

builds arguments based on the standard input, passing them in  
batches to the specified command which is executed  
enough times to deplete all the arguments ..... xargs  
passes its arguments in batches to a command that is run once  
per every batch ..... apply

### Constructing command lines using Macintosh dialog boxes

builds command lines interactively ..... cmdo

## Communicating

### Communicating with other users

displays local news items ..... news  
displays the mail header lines in your mailbox ..... from  
enables and disables notification of mail by comsat ..... biff  
enables you to send and receive messages electronically ..... mailx  
permits or denies the receipt of messages ..... mesg  
send mail to users or read mail ..... mail  
talks to another user via the terminal ..... talk  
writes to all users ..... wall  
writes to another user ..... write

### Using AppleTalk

allows you to choose a default printer on the AppleTalk  
internet ..... at\_cho\_prn  
displays status information from an AppleTalk device ..... atstatus  
looks up network-visible entities (NVEs) registered on the  
AppleTalk network system ..... atlookup  
transfers data to a printer by using AppleTalk protocols ..... atprint

### Using TCP/IP

assigns a serial line to a network interface ..... slip  
communicates with another host via the TELNET protocol ..... telnet  
displays the status of machines on the local network (RPC version).... rup  
distributes remote files ..... rdist  
responds to requests to use the DARPA Trivial File Transfer  
Protocol ..... tftpd  
transfers files by using the DARPA Internet File Transfer Protocol  
(FTP) ..... ftp  
transfers files via the Trivial File Transfer Protocol (TFTP) ..... tftp  
writes to all users over a network ..... rwall

## Using UUCP

controls `uucp` jobs and provides status information ..... `uustat`  
copies files from one system to another system ..... `uucp`  
displays information about `uucp` file transfers ..... `uulog`  
displays the names of systems to which `uucp` and `cu` can  
connect ..... `uname`  
displays the service grades that are available on your system .... `uglist`  
provide an easy interface to the `uucp` command, using the  
public directories ..... `uupick`  
provide an easy interface to the `uucp` command, using the public  
directories ..... `uuto`  
runs a command on a remote system ..... `uux`  
sends a file to a remote host ..... `uusend`

## Using other communications tools

encode and decode a binary file ..... `uudecode`  
encode and decode a binary file ..... `uuencode`  
establishes a connection to a remote system ..... `tip`  
establishes an interactive connection with another system ..... `cu`  
invokes the Kermit file-transfer program ..... `kermit`  
runs `login` on a dial-up line ..... `ct`  
updates files between two machines ..... `updater`

## Playing games

animates raindrops ..... rain  
converts Arabic numerals to English ..... number  
generates a maze ..... maze  
gives associative knowledge tests on various subjects ..... quiz  
play the game of tic-tac-toe ..... cubic  
play the game of tic-tac-toe ..... ttt  
plays the game of autorobots ..... autorobots  
plays the game of backgammon ..... back  
plays the game of black jack ..... bj  
plays the game of chase ..... chase  
plays the game of craps ..... craps  
plays the game of cribbage ..... cribbage  
plays the game of fortune telling ..... fortune  
plays the game of Go Fish'' ..... fish  
plays the game of growing worm ..... worm  
plays the game of hangman ..... hangman  
plays the game of hunt-the-wumpus ..... wump  
plays the game of life ..... life  
plays the game of Mastermind ..... mastermind  
plays the game of moo ..... moo  
plays the game of robots ..... robots  
plays the game of Space Invaders (A/UX version) ..... aliens  
plays the game of trek ..... trek  
plays the game of twinkle, twinkle little stars ..... twinkle  
plays the game of worms ..... worms  
provides arithmetic problems ..... arithmetic  
simulates a punched card corresponding to a text argument ..... bcd

## Processing text as records within a database

### Processing sorted text records

combines (joins) two relational files ..... join  
reports repeated lines in a file ..... uniq  
selects or rejects lines common to two sorted files ..... comm

### Processing text records and fields

cuts out selected fields of each line of a file ..... cut  
merges lines of several files or subsequent lines of one file ..... paste  
removes columns from a file ..... colrm  
sorts or merges files ..... sort

## Processing structured or unstructured text

### Editing text

edit text ..... e  
edit text ..... ed  
edit text ..... ex  
edit text ..... red  
edits big files ..... bfs  
invokes the screen-oriented (visual) display editor ..... vedit  
invokes the screen-oriented (visual) display editor ..... vi  
invokes the screen-oriented (visual) display editor ..... view  
lets you edit files interactively through mouse and menu  
operations ..... TextEditor

### Generating custom text transformations

edits a stream of data ..... sed  
generates an encryption key ..... makekey  
scans a file for lines that match a specific pattern ..... awk  
translates characters ..... tr

### Printing poster-size text

generates a large banner ..... banner7  
generates a poster ..... banner

### Processing tabbed text

changes the format of a text file ..... newform  
expand tabs to spaces, and vice versa ..... expand  
expand tabs to spaces, and vice versa ..... unexpand



## Reporting occurrences of words or letters

counts characters, words, and lines in a file .....	wc
finds references in a bibliography.....	lookbib
reports character frequencies in a file .....	freq
search a file for a specific pattern.....	egrep
search a file for a specific pattern.....	fgrep
search a file for a specific pattern .....	grep

## Processing text to produce printed documents

### Filtering printer motions from text for display purposes

filter text containing printer control sequences for a DASI terminal . . . .	300
filter text containing printer control sequences for a DASI terminal . . . . .	300s
filters special underlining sequences imbedded in text for use at a display device . . . . .	ul
filters text containing printer control sequences a page at a time . . . . .	4014
filters text containing printer control sequences for the DASI terminal . . . . .	450
filters text containing printer control sequences for use at a display device . . . . .	col
filters text for vintage display devices . . . . .	greek
filters <code>nroff</code> output for terminal previewing . . . . .	colcrt
interprets <code>troff</code> output for use at a vintage display device . . . . .	tc

### Formatting text into pages for printing

converts text files to <code>format</code> for printing . . . . .	enscript
converts <code>troff</code> intermediate format to POSTSCRIPT format . . . . .	psdit
formats a file through <code>troff</code> so it can be printed on a POSTSCRIPT printer . . . . .	psroff
formats and typesets files . . . . .	troff
formats documents that contain <code>nroff</code> and <code>mm</code> macro formatting requests . . . . .	mm
formats text for a print device . . . . .	pr
formats text for a specific phototypesetter . . . . .	otroff
invokes the Autologic APS-5 phototypesetter <code>troff</code> post-processor . . . . .	daps
prints out all records in a bibliographic database . . . . .	roffbib
text formatter . . . . .	nroff
typeset documents that contain <code>troff</code> and <code>mm</code> or <code>mv</code> macro-formatting requests . . . . .	mmt
typeset documents that contain <code>troff</code> and <code>mm</code> or <code>mv</code> macro-formatting requests . . . . .	mvt

## Preparing text with `troff` markup

analyzes the surface characteristics of documents..... `style`  
builds an inverted index for a bibliography ..... `indxbib`  
creates a subject-page index for a document ..... `ndx`  
creates or extends a bibliographic database ..... `addbib`  
find spelling errors ..... `hashcheck`  
find spelling errors ..... `hashmake`  
find spelling errors ..... `spell`  
find spelling errors ..... `spellin`  
finds and inserts literature references in documents ..... `refer`  
generates a list of subjects from documents ..... `subj`  
generates a permuted index ..... `ptx`  
locate wordy sentences in a document ..... `diction`  
locate wordy sentences in a document ..... `explain`  
sorts bibliographic database ..... `sortbib`

## Preprocessing subsidiary markup within `troff` markup

eliminates the source commands from `nroff` input ..... `soelim`  
folds long lines for finite-width output device..... `fold`  
format mathematical text for `troff` ..... `eqn`  
formats mathematical text for `nroff`..... `neqn`  
invokes a simple text formatter..... `fmt`  
invokes a `pic` preprocessor for drawing graphs ..... `grap`  
prepare constant-width text for `otroff` ..... `cw`  
preprocesses `troff` files that contain drawings..... `pic`  
processes a file through a line numbering filter ..... `nl`  
produces single spaced output..... `ssp`  
table formatter for `nroff` or `troff`..... `tbl`

## Processing `troff`-related markups for special purposes

check documents formatted with the `mm` macros ..... `checkmm`  
check documents formatted with the `mm` macros ..... `checkmm1`  
checks `nroff/troff` files ..... `checknr`  
finds hyphenated words ..... `hyphen`  
format mathematical text for `troff` ..... `checkeq`  
marks the differences between two files ..... `diffmk`  
prepare constant-width text for `otroff` ..... `checkcw`  
produces a cross-reference listing of macro files ..... `macref`  
removes `nroff/troff`, `tbl`, and `eqn` constructs ..... `deroff`

## Setting up device-specific fonts for use with `troff`

prepares `troff` description files ..... `makedev`

## Processing plotter drawings

### Filtering plotter input for display purposes

interprets plotter instructions for use at a vintage display device .... `tplot`

### Processing graphics

draws a graph ..... `graph`

interpolates a smooth curve ..... `spline`

## Writing shell programs

### Evaluating expressions to provide true or false results

evaluates conditions ..... test  
provides truth values ..... false  
provides truth values ..... true

### Evaluating math or string expressions

echoes its arguments ..... echo  
evaluates arguments as an expression ..... expr  
get part of a pathname ..... basename  
get part of a pathname ..... dirname  
parses command options ..... getopt  
reverses characters within each line of text ..... rev

### Performing input or output operations

posts a Macintosh alert box to query the user ..... macquery  
prints its arguments as a function built into the Korn (ksh)  
    shell ..... print  
queries the user for input ..... query  
queries terminfo database ..... tput  
reads one line from the standard input ..... line

## Programming

### Using Macintosh development tools

compiles Macintosh resource files from source code ..... rez  
decompiles a resource file ..... derez

### Using other programming tools

assembles files by translating assembler mnemonics to object code ..... as  
compiles and interprets bs programs ..... bs  
compiles compilers (yet another compiler-compiler) ..... yacc  
compiles regular expressions with a file ..... regcmp  
converts an object file to Motorola S-record format ..... hex  
converts binary data to a displayable form in octal, decimal,  
hexadecimal, or ASCII ..... od  
creates a shared library ..... mkshlib  
debugs and executes programs ..... dbx  
debugs executable programs ..... adb  
displays profile data ..... prof  
displays section sizes of common object files ..... size  
displays the symbol table of a common object file ..... nm  
finds the ordering relation for an object library ..... lorder  
finds the printable strings in an object or other binary file ..... strings  
generates C source code from a remote procedure call (RPC)  
source file ..... rpcgen  
generates programs for simple lexical tasks ..... lex  
invokes the link editor for common object files ..... ld  
maintains a library of files in an archive ..... ar  
maintains, updates, and regenerates groups of files ..... make  
produces an assembly language listing for a specified file ..... dis  
receives and converts Motorola S-records from a port to a file .... rcvhex  
sorts lines in a file topologically ..... tsort  
stores (saves) selected parts of an object file ..... dump  
strips symbol and line number information from an object file ..... strip  
swaps bytes in COFF files ..... conv  
symbolic debugger ..... sdb

## Using the C language

creates an error message file by massaging C source programs ..... mkstr  
debugs a C program ..... ctrace  
generates a C flowgraph ..... cflow  
generates a C program cross-reference ..... cxref  
improves spacing and indentation of C source files ..... cb  
indents and formats C program source ..... indent  
invokes a C program checker ..... lint  
invokes the C compiler ..... cc  
invokes the C language preprocessor ..... cpp  
maintains a tags file for a C program ..... ctags  
reports strings from C programs to implement shared strings ..... xstr

## Using the Fortran language

filters the output of Fortran programs for line printing ..... fpr  
interprets ASA carriage control characters ..... asa  
invokes the Extended Fortran Language ..... efl  
invokes the Fortran 77 compiler ..... f77  
splits f77 or efl files ..... fsplit

## Using unusual programming languages

processes macros for C and other languages ..... m4  
runs the SNOBOL interpreter ..... sno



## Using version management (RCS)

checks in RCS revisions ..... ci  
checks out RCS revisions ..... co  
compares RCS revisions ..... rcsdiff  
creates new RCS files or changes attributes of existing RCS files ..... rcs  
displays log messages and other information about RCS files ..... rlog  
displays RCS keywords and their values ..... ident  
merges two versions of an RCS file ..... rcsmerge

## Using version management (SCCS)

builds an RCS file from an SCCS file ..... sccstorcs  
changes the delta commentary of an SCCS delta ..... cdc  
combines SCCS deltas ..... comb  
compares two versions of an SCCS file ..... sccsdiff  
creates and administers SCCS files ..... admin  
displays information about an SCCS file ..... prs  
displays who has checked a Source Code Control System (SCCS)  
file out for editing ..... sact  
gets a version of an SCCS file ..... get  
makes a delta (change) to an SCCS file ..... delta  
manipulates version control information inside a data stream ..... vc  
performs SCCS subsystem commands ..... sccs  
provides help information about SCCS commands and messages ..... help  
removes a delta from an SCCS file ..... rmdel  
reports identification information for a file ..... what  
undoes a previous get of an SCCS file ..... unget  
validate SCCS file ..... val

## Administering your system

### AppleTalk network maintenance

- enables you to configure and display AppleTalk network interfaces ..... `appletalk`
- exercises the AppleTalk network by sending packets to a named host ..... `appleping`

### Backing up your system

- copies blocks interactively ..... `bcopy`
- copies System V File System-style file systems for optimal access time ..... `dcopy`
- copy file systems with label checking ..... `labelit`
- copy file systems with label checking ..... `volcopy`
- create a `dump.bsd` archive by making copies of files from a given file system ..... `dump.bsd`
- create a `dump.bsd` archive by making copies of files from a given file system ..... `rdump`
- generates a fast incremental backup for System V file systems ..... `finc`
- helps you with autorecovery administration ..... `escher`
- recovers files from a backup tape ..... `freq`
- retrieve files from within a `dump.bsd` archive into an existing file system ..... `restore`
- updates autorecovery files ..... `eu`
- updates important files for autorecovery purposes ..... `eupdate`

### Examining system status

- calls the error-logging daemon ..... `errdemon`
- displays kernel name cache statistics ..... `ncstats`
- extracts error records from a crash dump ..... `errdead`
- prints system facts ..... `pstat`
- processes a report of logged errors ..... `errpt`
- terminates the error-logging daemon ..... `errstop`
- turns on/off the reporting of extended errors ..... `exterr`

## File system maintenance

checks file-system consistency and interactively repairs the file system ..... fsck  
clears inodes ..... clri  
constructs a file system with 512-byte blocks ..... mkfs1b  
constructs a System V file system ..... mkfs  
creates an entry in the file-system table ..... fsentry  
debugs the file system ..... fsdb  
displays the current device name ..... devnm  
identifies processes using a file or file structure ..... fuser  
installs random inode generation numbers ..... fsirand  
lists file names and statistics for a System V file system ..... ff  
locates the filename associated with an i-number ..... ncheck  
makes a Berkeley 4.2 (UFS) file system ..... newfs  
makes a directory named `lost+found` to be used  
by fsck ..... mklost+found  
mount and unmount file systems ..... mount  
mount and unmount file systems ..... umount  
reports the file-system type ..... fstyp  
reports the state of a file system ..... fsstat  
tunes a Berkeley 4.2 (UFS) file system ..... tuneufs  
updates the superblock ..... sync

## Installing new software

installs files in specified directories ..... cpset  
installs A/UX software from specially prepared floppy disks ... finstall  
places files in specified directories ..... install

## Kernel generation

creates an up-to-date kernel ..... autoconfig  
generates an up-to-date kernel ..... newconfig  
manipulates the files that determine the configuration of a  
new kernel ..... newunix  
queries kernel files for configuration information ..... module\_dump  
tunes kernel parameters for work-load optimization ..... kconfig

## Mail system maintenance

invokes the server for biff ..... comsat  
lists the contents of the mail queue ..... mailq  
rebuilds the database for the mail aliases file ..... newaliases  
sends mail ..... sendmail

## Monitoring system activity

displays load average statistics ..... lav  
displays the system status on the status line of a terminal ..... sysline  
gathers printer/plotter accounting information ..... pac  
generates a system activity graph ..... sag  
generates disk accounting data by user ID ..... diskusg  
invoke connect-time accounting ..... acctcon  
invoke connect-time accounting ..... acctcon1  
invoke connect-time accounting ..... acctcon2  
logs system messages ..... syslogd  
manipulate connect accounting records ..... fwtmp  
manipulate connect accounting records ..... wtmpfix  
merges or adds accounting files ..... acctmerg  
present an overview of accounting commands ..... acct  
provide process accounting ..... acctprc  
provide process accounting ..... acctprc1  
provide process accounting ..... acctprc2  
provide shell procedures for accounting ..... acctsh  
provide shell procedures for accounting ..... chargefee  
provide shell procedures for accounting ..... ckpacct  
provide shell procedures for accounting ..... dodisk  
provide shell procedures for accounting ..... lastlogin  
provide shell procedures for accounting ..... monacct  
provide shell procedures for accounting ..... nulladm  
provide shell procedures for accounting ..... prctmp  
provide shell procedures for accounting ..... prdaily  
provide shell procedures for accounting ..... prtacct

provide shell procedures for accounting ..... shutacct  
 provide shell procedures for accounting ..... turnacct  
 report system activity ..... sa1  
 report system activity ..... sa2  
 report system activity ..... sadc  
 reports interprocess communication facilities status ..... ipcs  
 reports system activity ..... sar  
 runs daily accounting ..... runacct  
 runs startup programs at boot time ..... startup  
 searches and formats process accounting files ..... acctcom  
 summarizes commands from per-process accounting records .... acctcms

### Network File System (NFS) network maintenance

displays Network File System (NFS) statistics ..... nfsstat  
 exports and unexports directories to Network File System  
     (NFS) clients ..... exportfs  
 handle local and remote lock requests ..... lockd  
 invoke the NFS daemons ..... biod  
 invoke the NFS daemons ..... nfsd  
 invokes the Network File System (NFS) mount-request server .... mountd  
 mounts Network File System (NFS) when needed ..... automount  
 provide crash and recovery monitoring for network locking  
     services ..... statd  
 reports RPC information ..... rpcinfo  
 returns information for the spray command ..... sprayd  
 sets or displays the name of the Network Information  
     Service (NIS) domain ..... domainname  
 shows all remote mounts ..... showmount  
 sprays packets ..... spray

## Print spooler maintenance

allows lp requests ..... accept  
configures the lp spooling system ..... lpadmin  
controls the operation of the line printer ..... lpc  
enable or disable LP printers ..... disable  
enable or disable LP printers ..... enable  
filter data for the POSTSCRIPT printers ..... psbanner  
filter data for the POSTSCRIPT printers ..... pscomm  
filter data for the POSTSCRIPT printers ..... psinterface  
filter data for the POSTSCRIPT printers ..... psrv  
filter data for the POSTSCRIPT printers ..... pstext  
filter data for the POSTSCRIPT printers ..... transcript  
generates a line-printer ripple pattern ..... lptest  
prevents LP requests ..... reject  
prints lp status information ..... lpstat  
start or stop the lp request scheduler and move requests ..... lpmove  
start or stop the lp request scheduler and move requests ..... lpsched  
start or stop the lp request scheduler and move requests ..... lpshut  
supports the Berkeley print spooler ..... lpd

## Setting up the system

adds disk blocks to or deletes them from the swap area ..... swap  
associates named partitions with device files ..... pname  
changes the current A/UX system node name ..... chgnod  
checks the installation of boards ..... checkinstall  
compiles (translates) terminfo files ..... tic  
compiles time-zone information files that are required to set the  
    local time-zone ..... tzic  
displays the date and time for one or more time zones ..... tzdump  
formats a disk through a driver-dependent format  
    operation ..... diskformat  
modify the /etc/inittab file in terms of enabling serial  
    ports for use as login terminals ..... tty\_add  
modify the /etc/inittab file in terms of enabling  
    serial ports for use as login terminals ..... tty\_kill

performs disk partitioning ..... dp  
 pushes streams line disciplines ..... line\_sane  
 set or reset the terminal to a sensible state ..... reset  
 set or reset the terminal to a sensible state ..... tset  
 set the initial communication modes, such as speed and  
 line discipline, for the purpose of logging users  
 in to A/UX through serial lines ..... apm\_getty  
 set the initial communication modes, such as speed and line  
 discipline, for the purpose of logging users in to A/UX  
 through serial lines ..... getty  
 sets or displays the identifier of the current host system ..... hostid  
 sets or displays the name of the current host system ..... hostname  
 sets or updates bad block information ..... badblk  
 sets the characteristics of a serial port ..... setport  
 sets the keyboard for the console ..... keyset  
 sets the local time zone ..... settimezone

## Starting up and shutting down

displays a progress bar during the A/UX boot  
 sequence ..... StartMonitor  
 execute system initialization shell scripts ..... bcheckrc  
 execute system initialization shell scripts ..... brc  
 execute system initialization shell scripts ..... macsysinitrc  
 execute system initialization shell scripts ..... powerfail  
 execute system initialization shell scripts ..... rc  
 execute system initialization shell scripts ..... sysinitrc  
 kills all active processes ..... killall  
 reboots the operating system ..... reboot  
 runs startup programs at boot time ..... startup  
 sends messages to StartMonitor, which displays a  
 progress bar during the A/UX boot process  
 ..... startmsg  
 spawn general processes ..... init  
 spawn general processes ..... telinit  
 terminates processes that support multi-user mode and  
 enters single-user mode ..... shutdown

turns off power to the computer ..... powerdown

## System administration tools

builds a device file ..... mknod  
removes device files from a directory ..... dev\_kill  
substitutes user ID ..... su

## TCP/IP network maintenance

attaches a serial line to a network interface and configures  
the network interface ..... slattconf  
attaches a serial line to a network interface ..... slattach  
converts Internet addresses to standard form ..... stdhosts  
converts RPC program numbers into DARPA protocol port  
numbers ..... portmap  
creates or updates the Compressed Serial Line/Internet  
Protocol (CSL/IP) database ..... mkslipuser  
displays and modifies the address translation table ..... arp  
displays network status information ..... netstat  
displays the current state of the Compressed Serial  
Line/Internet Protocol (CSL/IP) database  
..... dslipuser  
displays the Ethernet address of each Ethernet card in  
your system ..... etheraddr  
exercises the TCP/IP network by sending Internet Control  
Message Protocol (ICMP) packets to a named host  
..... ping  
interactively queries name servers ..... nslookup  
invokes a server for kernel statistics ..... rstatd  
invokes the network routing daemon ..... routed  
invokes the network rwall server ..... rwalld  
invokes the remote shell server ..... remshd  
invokes the remote user communication server ..... talkd  
invokes the system status server ..... rwhod  
manages network interfaces ..... ifconfig  
manipulates the routing tables ..... route  
prints a readable description of TCP trace records ..... trpt



provide Internet File Transfer Protocol (FTP) service ..... ftpd  
 provides Internet domain name service ..... named  
 runs on a remote system to log you in ..... remlogin  
 server for remote executions ..... rexecd  
 server for remote logins ..... rlogind  
 starts Internet servers when needed ..... inetd  
 supports the DARPA standard TELNET protocol ..... telnetd  
 rusers invokes a server for users ..... rusersd

### User account maintenance

adds a user account ..... adduser  
 changes the real-name field of your password file entry for use by  
 finger ..... chfn  
 check the password/group files ..... grpck  
 check the password/group files ..... pwck  
 edits the password file ..... vipw  
 handles requests from remote systems for user information  
 from finger ..... fingerd

### UUCP network maintenance

checks the uucp directories and files ..... uuccheck  
 cleans up files in the uucp spool directory ..... uudemond.cleanup  
 contacts a remote system with debugging on ..... Uutry  
 handles remote mail received via UUCP ..... rmail  
 handles requests from remote systems to run commands ..... uuxqt  
 handles the transfer of files by uucico over TCP/IP  
 connections ..... uucpd  
 mails current uucp work status to the uucp  
 administrator ..... uudemond.admin  
 processes spooled uucp requests ..... uudemond.hour  
 removes old files from the uucp spool directory ..... uucleanup  
 schedules uucp file transfers ..... uucsched  
 sets up polling for selected systems ..... uudemond.poll  
 transfers files as specified by uucp work files ..... uucico

## Name Information Server (NIS) maintenance

changes a login password on the Network Information  
Service (NIS) master server ..... yppasswd

displays the host name of a system's Network Information  
Service (NIS) server ..... ypwhich

generates a Network Information Service (NIS) dbm file ..... makedbm

handle requests to change a password served by the  
Network Information Service (NIS) ..... yppasswdd

initializes Network Information Service (NIS) maps for  
master and slave servers ..... ypinit

lists the contents of a Network Information Service (NIS) map ..... ypcat

lists the value of a specified key in a Network Information  
Service (NIS) map ..... ypmatch

propagates changed Network Information Service (NIS) maps .... yppush

provide Network Information Service (NIS) service ..... ypserv

rebuilds the Network Information Service (NIS) maps ..... ypmake

reports the version of a Network Information Service (NIS)  
map that is on an NIS server ..... yppoll

reverses the netgroup file ..... revnetgroup

sets ypbind to a particular domain and Network Information  
Service (NIS) server ..... ypset

transfers a Network Information Service (NIS) map to the local  
system ..... ypxfr

## Command Synopses

### 300

300 [+12] [-*half-line-units*] [-*dtab-delay*, *line-delay*, *char-delay*]  
300s [+12] [-*half-line-units*] [-*dtab-delay*, *line-delay*, *char-delay*]

### 300s

See 300.

### 4014

4014 [-*ccolumns*] [-*n*] [-*plines*[*i*] [*l* [-*t*] [*file*]

### 450

450

### accept

accept *destinations*

### acct

acctdisk  
acctdusg [-*p file*] [-*u file*]  
accton [*file*]  
acctwtmp *reason*

### acctcms

/usr/lib/acct/acctcms [-*a* [-*o*] [-*p*]] [-*c*] [-*j*] [-*n*] [-*s*] [-*t*]  
*file*...

### acctcom

acctcom [-*a*] [-*b*] [-*C sec*] [-*e time*] [-*E time*] [-*f*] [-*g group*]  
[-*h*] [-*H factor*] [-*i*] [-*I chars*] [-*k*] [-*l line*] [-*m*] [-*n pattern*]  
[-*o ofile*] [-*O sec*] [-*q*] [-*r*] [-*s time*] [-*S time*] [-*t*] [-*u user*] [-*v*]  
[*file*]...

### acctcon

acctcon1 [-*lfile*] [-*ofile*] [-*p*] [-*t*]  
acctcon2

**acctcon1**

See acctcon.

**acctcon2**

See acctcon.

**acctdisk**

See acct.

**acctdusg**

See acct.

**acctmerg**

acctmerg [-a] [-i] [-p] [-t] [-u] [-v] [*file*]...

**accton**

See acct.

**acctprc**

acctprc1 [ctmp]  
acctprc2

**acctprc1**

See acctprc.

**acctprc2**

See acctprc.

**acctsh**

chargefee *login-name number*  
ckpacct [*amt*]  
dodisk [-o] [*filesys*]...  
lastlogin  
monacct *month*  
nulladm *name*  
prctmp [*recfile*]...  
prdaily [-l] [-c] [*mdd*]  
prtacct *file [heading]*  
shutacct [*reason*]  
startup  
turnacct on| off| switch

**acctwtmp**

See acct.

**adb**

adb [-k] [-w] [*object-file* [*core-file*]]

**addbib**

addbib [-a] [-p *prompt-file*] *database*

**adduser**

adduser [-a *address*] [-c] [-d *dir*] [-g *group*] [-h *home*] [-i]  
[-p *home-phone*] [-r *real-name*] [-s *shell*] [-u *lowest*] [-U *uid*]  
[-x *extension*] [*login-name*]...

**admin**

admin [-a*name-or-gid*] [-d*option*[*value*]] [-e*name-or-gid*]  
[-f*option*[*value*]] [-h] [-i[*name*]] [-m[*mrlist*]] [-n] [-r*release*[*level*]]  
[-t[*descriptive-text*]] [-y[*comment*]] [-z] *file*...

**ae****aliens**

aliens

**apm\_getty**

See getty.

**appleping**

appleping *net-node* [*packet-size* [*npackets*]]  
appleping *name* : *type*[@*zone*] [*packet-size* [*npackets*]]

**appletalk**

appletalk [-b *hardware-interface*] [-c] [-d] [-i *interface*] [-n]  
[-p] [-s] [-u] [-z]

**apply**

apply [-a*esc-char*] [-a*args-per-batch*] *command* *argument*...

**apropos**

apropos *search-string*...

**ar**

```

ar -dp [l] [v] archive file...
ar -mp [l] [v] [position archivefile] archive file...
ar -qp [c] [l] [v] archive file...
ar -rp [c] [l] [u] [v] [position archivefile] archive file...
ar -tp [s] [v] archive file...
ar -xp [l] [s] [v] archive file...

```

**arithmetic**

```

arithmetic [+][-][x][/][range]

```

**arp**

```

arp host
arp -a [kernel] [memory-interface]
arp -d host
arp -f file
arp -s host ethernet-address [status]

```

**arp****as**

```

as [-A factor] [ -m ] [ -n ] [-o object-file] [ -R ] [ -V ]
[ -68030 ] [ -68040 ] [ -68851 ] file

```

**asa**

```

asa [file]...

```

**ascii**

```

cat /usr/pub/ascii

```

**at**

```

at time [day] [+ increment]
at -l [job-number]...
at -r job-number...
batch

```

**atlookup**

```

atlookup [-d] [-r nn] [-s ss] [-x] [object[:type[@zone]]]
atlookup -z [-C]

```

**atprint**

```

atprint [printer-name[:printer-type[@zone]]]

```

**atstatus**

atstatus [*object* [:*type* [@*zone*]]]

**at\_cho\_prn**

at\_cho\_prn [*type*[@*zone*]]

**autoconfig**

autoconfig [-a] [-b *module-directory*] [-d *init-scripts-directory*]  
 [-i *base-kernel*] [-I] [-k] [-l *linker*] [-L *loadfile*]  
 [-m *master-directory*] [-M *master-file*] [-o *kernel-file*]  
 [-s *startup-scripts-directory*] [-S *script*] [-t *timeout*] [-v] [-V]  
 autoconfig -D [-i *base-kernel*] [-v] [-V]  
 autoconfig -c [-v] [-V]

**automount**

automount [-D *environment-variable=value*] [-f *master-file*] [-m]  
 [-M *mount-directory*] [-n] [-tl *duration*] [-tm *interval*]  
 [-tw *interval*] [-T] [-v] [*directory map* [-*mount-options*]]...

**autorobots**

autorobots

**awk**

awk [-F*field-separator*] '*pattern-action...*' [[-v] *variable=value*]...  
 [*file*]...  
 awk [-f *awk-source-file*] [-F*field-separator*] [[-v] *variable=value*]...  
 [*file*]...

**back**

back

**badblk**

badblk [-r] /dev/rdisk/c?d?s? [*blkno*]...

**banner**

banner *string*...

**banner7**

banner7 [-w [*width*]] [*text*]

**basename**

basename *string* [*suffix*]  
 dirname *string*

**batch**

See at.

**bc**

bc [-c] [-l] [*file*]...

**bcd**

bcd *text*

**bcheckrc**

See brc.

**bcopy**

bcopy

**bdiff**

bdiff *file1 file2* [*lines-per-segment*] [-s]

**bfs**

bfs [-] *file*

**biff**

biff [*switch*]

**biod**

See nfsd.

**bj**

bj

**brc**

brc  
bcheckrc  
macsysinitrc  
powerfail  
rc  
sysinitrc

**bs**

bs [*file* [*argument*]...]

**cal**

cal [[*month*] *year*]



**calendar**

calendar [-]

**cancel**

cancel [*printer*]  
cancel [*id*]...

**cat**

cat [-] [-e] [-s] [-t] [-u] [-v [*file*]...

**cb**

cb [-j] [-l *line-length*] [*file*]...  
cb [-j] [-s] [*file*]...

**cc**

cc [-A *factor*] [-a] [-B *string*] [-c] [-C] [-Dsymbol[=*def*]] [-E]  
[-fm68881] [-F] [-g] [-I*dir*] [-lx] [-L *dir*] [-n] [-o *outfile*] [-O]  
[-p] [-P] [-R] [-s] [-S] [-t [*p012al*]] [-T] [-Usymbol] [-v]  
[-W *c, arg1[, arg2]*]... [-X] [-y] [-Z*flags*] [-68030] [-68040]  
[-68851] [-#]... *file*...

**ccat**

See compact.

**cdc**

cdc [-m[*mrlist*]] -r *SID* [-y[*comment*]] *file*...

**cflow**

cflow [-dnum] [-i\_] [-ix] [-r] *file*...

**changesize**

changesize [ $\pm$ *option*] [-mminsize] [-pprefsize] [-v] *file*

**chargefee**

See acctsh.

**chase**

chase [*nrobots*] [*nfences*]

**checkcw**

See cw.

**checkeq**

See eqn.

**checkinstall**

checkinstall ethertalk

**checkmm**

checkmm *file...*

**checkmm1**

See checkmm.

**checknr**

checknr [-a.x1.y1.x2.y2....xn.yn] [-c.x1.x2.x3....xn] [-f]  
[-s] [*file*]..

**chfn**

chfn [*login-name*]

**chgnod**

chgnod *new-nodename* [*kernel-file*]

**chgrp**

See chown.

**chmod**

chmod *mode file...*

**chown**

chown *owner file...*

chgrp *group file...*

**chroot**

chroot *newroot command*

**chsh**

chsh *name* [*shell*]

**ci**

ci [-f[*rev*]] [-k[*rev*]] [-l[*rev*]] [-q[*rev*]] [-r[*rev*]] [-u[*rev*]] [-mmsg]  
[-nname] [-Nname] [-sstate] [-t[*txtfile*]] *files*

**ckpacct**

See acctsh.

**clear**

clear

**clri**

clri [-T*file-system-type*] *file-system* *i-number*...

**cmdo**

cmdo *command*

cmdo -o *resfile* [-n] [-s] *command*

**cmp**

cmp [-l] [-s] *file1* *file2*

**co**

co [-d*date*] [-j*joinlist*] [-l[*rev*]] [-p[*rev*]] [-q[*rev*]] [-r[*rev*]] [-s*state*]  
[-w[*login*]] *files*

**col**

col [-b] [-f] [-p] [-x]

**colcrt**

colcrt [-] [-2] [*file*]

**colrm**

colrm *startcol* [*endcol*]

**comb**

comb [-*clist*] [-o] [-*psid*] [-s] *file*...

**comm**

comm [- [1] [2] [3]] *file1* *file2*

**CommandShell**

CommandShell [-b *macsysinit-pid*] [-q] [-u]

**compact**

compact [*name*]...

uncompact [*name*]...

ccat [*file*]...

**compress**

compress [-b *maxbits*] [-c] [-f] [-v] [-V] [*file*]...  
compressdir [*compress-flag*]... [*directory*]...  
uncompressdir [*uncompress-flag*]... [*directory*]...  
uncompress [-c] [-f] [-v] [-V] [*file*]...  
zcat [-v] [*file*]...  
zcmp [*cmp-option*]... *file1* [*file2*]  
zdiff [*diff-option*]... *file1* [*file2*]  
zmore [*file*]...

**compressdir**

See compress.

**comsat**

comsat

**conv**

conv [-] [-a] [-o] [-p] [-s] -t*target* *file*...

**cp**

cp [-i] [-r] *file1* *file2*  
cp [-i] [-r] *file*... *directory*

**cpio**

cpio -o [a] [c] [B] [F] [v]  
cpio -i [6] [b] [B] [c] [d] [f] [m] [r] [s] [S] [t] [u] [v] [*patterns*]  
cpio -p [a] [d] [l] [m] [u] [v] *directory*

**cpp**

cpp [-C] [-D*name*[=*def*]] [-I*dir*] [-P] [-U*name*] [-M[*prefix*]] [-Y]  
[*ifile* [*ofile*]]

**cpset**

cpset [-o] [-O] *file* *directory* [*mode* [*owner* [*group*]]]

**craps**

craps

**cribbage**

cribbage [-e] [-q] [-r] *name*...

**cron**

cron

**crontab**

```
crontab [file]
crontab -l
crontab -r
```

**crypt**

```
crypt [password]
```

**csch**

```
csch [-c] [-e] [-f] [-i] [-n] [-s] [-t] [-v] [-V] [-x] [-X] [arg]...
```

**csplit**

```
csplit [-f prefix] [-k] [-s] file arg1 [... argn]
```

**ct**

```
ct [-cdevice-type] [-h] [-ldevice-name] [-sbaud-rate] [-v]
[-wtime-limit] [-xdebug-level] telephone-number ...
```

**ctags**

```
ctags [-a] [-u] [-w] [-x] file...
```

**ctrace**

```
ctrace [-b] [-e] [-ffunctions] [-ln] [-o] [-p 's'] [-P] [-rf] [-s]
[-tn] [-u] [-vfunctions] [-x] [file]
```

**cu**

```
cu [-bbits] [-dhint] [-e] [-cdevice-type] [-o] [-sbaud-rate]
[-xdebug-level] -ldevice-name
cu [-bbits] [-dhint] [-e] [-cdevice-type] [-ldevice-name] [-o]
[-sbaud-rate] [-xdebug-level] telephone-number
cu [-bbits] [-dhint] [-e] [-cdevice-type] [-ldevice-name] [-o]
[-sbaud-rate] [-xdebug-level] system
```

**cubic**

```
See ttt.
```

**cut**

```
cut -clist [-s] [file]...
cut -flist [-d char] [-s] [file]...
```

**cw**

```
cw [-d] [-fn] [-lxx] [-rxx] [-t] [+t] [file]...
checkcw [-lxx] [-rxx] file...
```

**cxref**

cxref [-c] [-o *file*] [-s] [-t] [-w[*num*]] *file*...

**daps**

daps [-b] [-hstring] [-olist] [-r] [-sn] [-t] [-w] [*file*]...

**date**

date [*mmdhmm*[*yy*]] [+*format*]

**dbx**

dbx [-c *file*] [-D] [-i] [-I *dir*]... [-r] [*objfile* [*coredump*]]

**dc**

dc [*file*]

**dcopy**

dcopy [-an] [-d] [-fsize [:*isize*]] [-sX] [-v] *inputfs outputfs*

**dd**

dd [bs=*n*] [cbs=*n*] [conv=ascii] [conv=ebcdic] [conv=ibm]  
 [conv=lcase] [conv=noerror] [conv=swab] [conv=sync]  
 [conv=*type*, *type*] [conv=ucase] [count=*n*] [ibs=*n*] [if=*file*]  
 [multi=in] [multi=in, out] [multi=out] [of=*file*] [obs=*n*]  
 [seek=*n*] [skip=*n*]

**delta**

delta [-glist] [-m[*mrlist*]] [-n] [-p] [-rSID] [-s] [-y[*comment*]] *file*...

**derez**

derez [-c] [-dmacro-assignment]... [-e] [-iinclude-dir]...  
 [-mstring-size] [-p] [-rd] [-umacro]... *resource-file*  
 [*resource-description-file*]...  
 derez [-c] -oscope [-dmacro-assignment]... [-e] [-iinclude-dir]...  
 [-mstring-size] [-p] [-rd] [-umacro]... *resource-file*  
 [*resource-description-file*]...  
 derez [-c] -somit-scope [-dmacro-assignment]... [-e]  
 [-iinclude-dir]... [-mstring-size] [-p] [-rd] [-umacro]... *resource-file*  
 [*resource-description-file*]...

**deroff**

deroff [-mx] [-w] [*file*]...

**devnm**

devnm [*mount-point*]

**dev\_kill**

dev\_kill *number directory...*

**df**

df -t [-f] [-T *fs-type*] [*fs-reference*]...

df -B [-i] [-T *fs-type*] [*fs-reference*]...

df -p [-i] [-T *fs-type*] [*fs-reference*]...

**diction**

diction [-f *pfile*] [-ml] [-mm] *file...*

diction [-ml] [-mm] [-n] *file...*

explain

**diff**

diff [-b] [-c] [-e] [-f] [-h] [-l] [-r] [-s] [-Sname] *dir1 dir2*

diff [-b] [-c] [-e] [-f] [-h] *file1 file2*

diff [-b] *file1 file2*

**diff3**

diff3 [-3] [-e] [-x] *file1 file2 file3*

**diffmk**

diffmk [-] *file1 file2 file3*

**dircmp**

dircmp [-d] [-s] [-wn] *dir1 dir2*

**dirname**

See *basename*.

**dis**

dis [-d *sec*] [-da *sec*] [-F *function*] [-l *string*] [-L] [-o] [-t *sec*]

[-V] *file...*

**disable**

See *enable*.

**diskformat**

diskformat [-cyl *start*[-*end*]] [-dens *n*] [-head 0] *floppy-device*  
 diskformat [-size 532] *hard-disk-device*

**diskusg**

diskusg [-i *ignlist*] [-p *pw-file*] [-s] [-u *outfile*] [-v] [*file*]...

**dodisk**

See acctsh.

**domainname**

domainname [*domain-name*]

**dp**

dp [-q] [-u] *file*

**dslipuser**

dslipuser

**du**

du [-a[1]] [-r] [-s] [*files*]

**dump**

dump [[-a] [-c] [-f] [-g] [-h] [-l] [-o] [-r] [-s] [-t] [-z *name*]]  
 [[-d *number*] [+d *number*] [-n *name*] [-p] [-t *index*] [+t *index*]  
 [-u] [-z *name, number*] [+z *name*]] *file*...  
 dump [[-a] [-c] [-f] [-g] [-h] [-l] [-r] [-t] [-z *name*]]  
 [[-d *number*] [+d *number*] [-n *name*] [-p] [-t *index*] [+t *index*]  
 [-u] [-v] [-z *name, number*] [+z *name*]] *file*...



**dump.bsd**

dump.bsd [Tfstype] [dumplev] [b] [d] [f] [n] [s] [u] [bdfs-arg]...  
*fs-reference*

dump.bsd [Tfstype] [dumplev] c [d] [f] [n] [s] [u] [dfs-arg]... *fs-reference*

dump.bsd [Tfstype] [dumplev] F [d] [f] [n] [s] [u] [dfs-arg]... *floppydev*

dump.bsd [Tfstype] w

dump.bsd [Tfstype] W

rdump [Tfstype] [dumplev] [b] [d] [f] [n] [s] [u] [bdfs-arg]...  
*host:fs-reference*

rdump [Tfstype] [dumplev] c [d] [f] [n] [s] [u] [dfs-arg]... *host:fs-reference*

rdump [Tfstype] [dumplev] F [d] [f] [n] [s] [u] [dfs-arg]... *host:fs-reference*

rdump [Tfstype] w

rdump [Tfstype] W

**e**

See ex.

**echo**

echo [arg]...

**ed**

ed [-] [-p *string*] [-x] [*file*]  
red [-] [-p *string*] [-x] [*file*]

**edit**

See ex.

**efl**

efl [-#] [-C] [-w] [*file*]...

**egrep**

See grep.

**eject**

eject [0] [1] [/dev/rdisk/*name*]

**enable**

enable *printers*  
 disable [-c] [-r*reason*] *printers*

**enscript**

enscript [-1] [-2] [-b*header*] [-B] [-f*font*] [-F*hfont*] [-g] [-G] [-h]  
 [-k] [-K] [-l] [-L*lines*] [-m] [-o] [-p*out*] [-q] [-r] [-R] [[-#*n*]  
 [-C*class*] [-J*name*] [-P*printer*]] [*files*]  
 enscript [-1] [-2] [-b*header*] [-B] [-f*font*] [-F*hfont*] [-g] [-G] [-h]  
 [-k] [-K] [-l] [-L*lines*] [-m] [-o] [-p*out*] [-q] [-r] [-R] [[-d*dest*]  
 [-nn] [-t*title*] [-w] [*files*]

**env**

env [-] [*name=value*]... [*command args*]

**environ**

extern char \*\*environ;

**eqn**

eqn [-dxy] [-fn] [-pn] [-sn] [-T*ty-type*] [-] [*file*]...  
 checkeq [*file*]...

**eqnchar**

eqn /usr/pub/eqnchar [*options*] [-] [*files*] | troff [*options*]  
 eqn /usr/pub/cateqnchar [*options*] [-] [*files*] | troff [*options*]  
 neqn /usr/pub/eqnchar [*options*] [-] [*files*] | troff [*options*]  
 eqn -Taps /usr/pub/apseqnchar [*options*] [-] [*files*] | troff  
 [*options*]

**errdead**

/etc/errdead *dumpfile* [*namelist*]

**errdemon**

errdemon [*file*]

**errpt**

errpt [-dev] [-a] [-e *date*] [-f] [-p *n*] [-s *date*] [*file*]...

**errstop**

errstop [*namelist*]

**esch**

esch [-b] [-c *cluster-number*] [-f] [-v]

**escher**

escher [-y] [-m]  
escher *file...*

**etheraddr**

etheraddr [*slot*]

**eu**

eu *file*

**eupdate**

eupdate

**ex**

ex [-] [+*command*] [-r] [-R] [-t *tag*] [-v] [-x] *file...*  
e [-] [+*command*] [-r] [-R] [-t *tag*] [-v] [-x] *file...*  
edit [-] [+*command*] [-r] [-R] [-t *tag*] [-v] [-x] *file...*

**expand**

expand -a [-*tabstop*] [-*tab1*, *tab2*, ... , *tabn*] [*file*]...  
unexpand [*file*]...

**explain**

See diction.

**exportfs**

exportfs  
exportfs -a [-i] [-v] [-o *export-options*] [-u] [*directory-or-file*]...  
exportfs -u [-v] *directory-or-file*...

**expr**

expr *arguments*

**exterr**

exterr /dev/*devicename* [*choice*]

**f77**

f77 [-1] [-66] [-A *factor*] [-c] [-C] [-E] [-f] [-F] [-g] [-I[*24s*]]  
[-m] [-N*table*entries]... [-o*output*] [-O] [-onetrip] [-p] [-R] [-S]  
[-u] [-U] [-w] *file*...

**factor**

factor [*number*]

**false**

See true.

**fcntl**

#include <fcntl.h>

**fcvt**

fcvt [-f] [-v] [-i *start-format*] -s *input-file* *output-file*  
 fcvt [-f] [-v] [-i *start-format*] -d *input-file* *output-file*  
 fcvt [-f] [-v] [-i *start-format*] -t *input-file* *output-file*  
 fcvt [-f] [-v] [-i *start-format*] -p *input-file* *output-file*  
 fcvt [-f] [-v] [-i *start-format*] -b *input-file* *output-file*  
 fcvt [-f] [-v] [-i *start-format*] -m *input-file* *output-file*

**ff**

ff [-an] [-cn] [-i *inode-list*] [-I] [-l] [-mn] [-n *file*] [-pprefix] [-s]  
 [-u] *device-file*

**fgrep**

See grep.

**file**

file [-c] [-f *ffile*] [-m *mfile*] *arg...*

**finc**

finc [-a *n*] [-c *n*] [-m *n*] [-n *file*] *disk-device-file* *device-file*

**find**

find *pathname...* *expression*

**finger**

finger [f] [w] [*login-or-real-name*]...  
 finger -i [f] [w] [*login-name*]...  
 finger -q [f] [w] [*login-name*]...  
 finger -l [b] [h] [m] [p] [*login-or-real-name*]...  
 finger [-l] *login-or-real-name@host* [*login-or-real-name@host*]...  
 finger [-s] *@host* [*@host*]...

**fingerd**

in.fingerd

**finstall**

finstall

**fish**

fish

**fmt**fmt [*file*]...**fold**fold [-width] [*file*]...**font**

troff -Tty-type ...

**fortune**

fortune

**fpr**

fpr

**frec**frec [-freqfile *inumber:name...*] [-ppath] *device-file***freq**freq [*file*]...**from**from [-s *sender*] [*user*]**fsck**

```
fsck -Tfs-type [-y] [-n] [-m timeout] [-s interleave] [-S interleave]
[-t file] [-q] [-D option]... [-f] [-p passtostart] [svfs-filesystem]...
fsck -Tfs-type [-b block-number] [-y] [-n] [-m timeout]
[-p passtostart] [ufs-filesystem]...
```

**fsdb**

```
fsdb [-?] [-o] [-pstring] [-T4.2] [-w] UFS-symbol...
fsdb [-] [-T5.2] SVFS-symbol...
```

**fsentry**

```
fsentry -t type [-o optlist] [-d dumpfreq] [-p passno] [-n] [-f]
disk-device-file mount-point
```

**fsirand**

fsirand [-p] [-Tfs-type] *special*

**fsplit**

fsplit [-e] [-f] [-s] *file...*

**fsstat**

fsstat [-Tfs-type] *fs-device-file*

**fstyp**

fstyp *file*

**ftp**

ftp [-d] [-g] [-i] [-n] [-v] [*remote-system*]

**ftpd**

ftpd [-d] [-l] [-ttimeout]

**fuser**

fuser [-] [-k] [-n*namelist*] [-u] *file...*

**fwtmp**

fwtmp [-ic]  
wtmpfix [*file*]...

**get**

get [-a*seq-no*] [-b] [-c*cutoff*] [-e] [-g] [-i*list*] [-k] [-l

]] [-m] [-n]  
[-p] [-r*SID*] [-s] [-t] [-w*string*] [-x*list*] *file...*

**getopt**

getopt [*flag-letter[:]*]... [*input-string*]

**getty**

getty [-C *string*] [-d] [-h] [-i] [-q] [-t *timeout*] *line*  
[*gettydefs-label* [*type* [*linedisc*]]]  
getty -c *file*

apm\_getty [-h] [-t *timeout*] *line* [*gettydefs-label* [*type* [*linedisc*]]]

**grap**

grap [-T*ty-type*] [-l] [-] [*file*]...

**graph**

graph [-a *sp*] [*st*] [-b] [-c*label*] [-g [*style*]] [-h *hspace*] [-l *title*]  
 [-m*mode*] [-r *rspace*] [-s] [-t] [-u *uspace*] [-w *wspace*] [-x [1] [a]  
 [b] [c]] [-y [1] [a] [b] [c]]

**greek**

greek [-T*terminal*]

**greek**

greek -T*terminal*[</usr/pub/greek]

**grep**

grep [-b] [-c] [-i] [-l] [-n] [-s] [-v] *expression* [*file*]...  
 egrep [-b] [-c] [-e *expression*] [-f *file*] [-i] [-l] [-n] [-v]  
 [*expression*] [*file*]...  
 fgrep [-b] [-c] [-e *expression*] [-f *file*] [-i] [-l] [-n] [-v] [-x]  
 [*strings*] [*file*]...

**groups**

groups [*user*]

**grpck**

See pwck.

**hangman**

hangman [*dictionary*]

**hashcheck**

See spell.

**hashmake**

See spell.

**head**

head [-*count*] [*file*]...

**help**

help [*args*]...

**hex**

hex [-f] [-l] [-n#] [-ns8] [-r] [-s0] [-s2] [+*saddr*] *ifile*

**hostid**

hostid [*identifier*]

**hostname**

hostname [*nameofhost*]

**hyphen**

hyphen [*file*]...

**icmp**

None; included automatically with inet(5F).

**id**

id

**ident**

ident *file*...

**ifconfig**

ifconfig *interface* [*address[dest-address]*] [*option*]...  
ifconfig *interface* [*address-family*]

**in.fingerd**

See fingerd.

**in.ftpd**

See ftpd.

**in.tftpd**

See tftpd.

**indent**

indent *input* [*output*] [-bc, -nbc] [-br, -bl] [-cn] [-cdn]  
[[-dj], -ndj] [-dn] [-in] [-ln] [-v, -nv]

**indxbib**

indxbib [*database*]... [*file*]...

**inet**

#include <sys/types.h>  
#include <netinet/in.h>



**inetd**

inetd [-d]

**init**

init [*run-level* [*directive*]]

**install**

install [-c *dira*] [-f *dirb*] [-g *group*] [-i] [-m *mode*] [-n *dirc*]  
 [-o] [-s] [-u *user*] *file* [*dirx*]...  
 install [-c *dira*] [-s] *file* [*dirx*]...  
 install [-f *dirb*] [-o] [-s] *file* [*dirx*]...  
 install [-g *group*] [-i] [-m *mode*] [-n *dirc*] [-o] [-s] [-u *user*]  
*file* [*dirx*]...

**ip**

```
#include <sys/socket.h>
#include <netinet/in.h>
```

**ipcrm**

ipcrm [-m *shm*id] [-M *shm*key] [-q *msg*id] [-Q *msg*key] [-s *sem*id]  
 [-S *sem*key]

**ipcs**

ipcs [-a] [-b] [-c] [-C *corefile*] [-m] [-N *namelist*] [-o] [-p] [-q]  
 [-s] [-t]

**isotomac**

See mactois.

**iw2**

iw2 [-a *dot*space] [-b] [-c *color*] [-d] [-D *udcfile*] [-f] [-h]  
 [-k *mode*] [-l *language*] [-m *margin*] [-n *length*] [-o *file*]  
 [-p *pitch*] [-q *quality*] [-s *spacing*] [-t *tabs*] [-u] [-U *udcfile*]  
 [-w *value*] [-x] [-z] [*file*]...

**join**

join [-an] [-e *string*] [-jn *m*] [-o *list*] [-tc] *file1 file2*

**kconfig**

kconfig [-a [-v] [-V]] [-n*namelist*]

**kermit**

kermit [-a *fn1*] [-b *n*] [-c] [-d] [-f] [-g *rfn*] [-h] [-i] [-k] [-l *dev*] [-n]] [-p *x*] [-q] [-r] [-s *fn*] [-t] [-w] [-x] [*file*]...

**keyset**

keyset [-c *country*] [-k *keyboard*]

**kill**

kill [-sig] *pid*...

**killall**

killall [-n *namelist*] [*signal*]

**ksh**

ksh [-a] [-c *string*] [-e] [-f] [-h] [-i] [-k] [-m] [-n] [-o *option*]... [-p] [--*positional-arg*]... [+*positional-arg*]... [-r] [-s] [-t] [-u] [-v] [-x] [*file*]...

**labelit**

See volcopy.

**last**

last [*name*]... [*tty*]...

**lastlogin**

See acctsh.

**launch**

launch [-adr] *application* [*document*]...  
launch -p [*adr*] *application* *document*...

**launch**

launch -a [-d] [-e] [-f] [-k *value*] [-m] [-p *swapdev-spec*] [-r] [-v] [-S] [-s] [*path*]

launch -n [-d] [-e] [-f] [-k *value*] [-m] [-p *swapdev-spec*] [-r] [-v] [-s] [-S] [*path*]

**lav**

lav

**ld**

ld [-a*factor*] [-e *epsym*] [-f *fill*] [-ild] [-lx] [-m] [-o *outfile*] [-r] [-s] [-t] [-u *symname*] [-x] [-z] [-F] [-L*dir*] [-M] [-N] [-S] [-V] [-VS *num*] *file*...

**leave**

leave [*hhmm*]

**lex**

lex [-c] [-n] [-t] [-v] [*file*]...

**life**

life [-r]

**line**

line *input*

**line\_sane**

line\_sane [*filde*s]

**lint**

lint [-a] [-b] [-D*name*[=*def*]] [-h] [-I*dir*] [-lx] [-n] [-o *lib*] [-p] [-u] [-U*name*] [-v] [-x] *file*...

**ln**

ln [-s] *file1* [*file2*]  
ln *file*... *directory*  
ln -f *directory1* *directory2*

**lo**

*pseudo-device* loop

**lockd**

See `rpc.lockd`.

**login**

login [*name* [*env-var*...]]

**Login**

Login [*startmac-options*] [-- [-g] [-r]]

**logname**

logname

**lookbib**

lookbib [-n] *database*

**lorder**

lorder *file*...

**lp**

lp [-c] [-d*dest*] [-m] [-n*number*] [-o*option*] [-s] [-t*title*] [-w] [*file*]...

**lpadmin**

lpadmin -p*printer* [-c*class*] [-e*printer*] [-h] [-i *interface*] [-l]  
[-n*model*] [-r*class*] [-v*device*]  
lpadmin -x*dest*  
lpadmin -d [*dest*]

**lpc**

lpc [*command* [*argument*]...]

**lpd**

lpd [-l] [*alt-internet-no*]

**lpmove**

See lpsched.

**lpq**

lpq [+*sleep-interval*] [-l] [-P*printer*] [*jobno*]... [*user*]...

**lpr**

lpr [-# *copies*] [-C *class*] [-h] [-i [*indent-cols*]] [-J *cover-title*] [-l]  
[-m] [-p] [-P *printer*] [-r] [-s] [-T *title*] [-w*page-width*] [*file*]...

**lprm**

lprm [-P*printer*] [-] [*jobno*]... [*user*]...

**lpsched**

lpsched  
lpshut  
lpmove *requests dest*  
lpmove *dest1 dest2*

**lpshut**

See lpsched.

**lpstat**

lpstat [-a $[list]$ ] [-c $[list]$ ] [-d] [-o $[list]$ ] [-p $[list]$ ] [-r] [-s] [-t]  
[-u $[list]$ ] [-v $[list]$ ]

**lptest**

lptest [ $length$  [ $count$ ]]

**ls**

ls [-a] [-b] [-c] [-C] [-d] [-F] [-g] [-i] [-l] [-L] [-m] [-n] [-o]  
[-p] [-q] [-r] [-R] [-s] [-t] [-u] [-x] [ $names$ ]

**m4**

m4 [-B $int$ ] [-e] [-Hint] [-s] [-S $int$ ] [-T $int$ ] [-D $name[=val]$ ] [-U $name$ ]  
[ $file$ ]...

**m68k**

See machid.

**machid**

m68k  
pdp11  
u3b  
u3b2  
u3b5  
u3b15  
vax

**macquery**

macquery [-a] [-c] [-n] [-s] [-t $timeout$ ]  $resource-file$   $alert-id$   
[ $parm1$  ...  $parm4$ ]

**macref**

macref [-n] [-s] [-t] [--]  $file$ ...

**macsysinitrc**

See brc.

**mactoiso**

mactoiso [-c  $char$ ] [ $file$ ]  
isotomac [-c  $char$ ] [ $file$ ]

**mail**

mail [-e] [-f $file$ ] [-p] [-q] [-r] [-t]  $address$ ...

**mailq**

mailq [-v]

**mailx**

mailx [-d] [-e] [-f *filename*] [-F] [-h *number*] [-H] [-i] [-n]  
[-N] [-r *address*] [-s *subject*] [-u *user*] [-U] [*name*]...

**make**

make [-a] [-b] [-B] [-ddigits] [-e] [-f *description-file*] [-g] [-G] [-i]  
[-k] [-K] [-M] [-n] [-p] [-P] [-q] [-r] [-s] [-t] [-u] [-V] [*target*]...

**makedbm**

makedbm [-d *yp-domain-name*] [-i *yp-input-file*]  
[-m *yp-master-name*] [-o *yp-output-name*] *infile outfile*  
makedbm [-u *dbmfilename*]

**makedev**

makedev *files*

**makekey**

makekey

**man**

man [-c] [-d] [-T*term*] [-w] [[*section*] *name*]...

**man**

nroff -man *files*  
troff -man [-rs1] *files*

**mastermind**

mastermind

**math**

#include <math.h>

**maze**

maze

**me**

nroff -me [*nroff-options*]...  
troff -me [*troff-options*]...

**merge**

merge [-p] *file1 file2 file3*

**mesg**

mesg [*choice*]

**mkdir**

mkdir *dirname...*

**mkfs**

mkfs *device-file blocks[:inodes] [gap modulus]*  
mkfs *device-file proto-file [gap modulus]*

**mkfs1b**

mkfs1b *special blocks[:inodes] [m n]*  
mkfs1b *special proto [m n]*

**mklost+found**

mklost+found

**mknod**

mknod *name type [major minor]*  
mknod *name p*

**mkshlib**

mkshlib -s *specs [-n] -t target [-h host]*

**mkslipuser**

mkslipuser

**mkstr**

mkstr [-] *messagefile prefix file...*

**mm**

mm [-12] [-c] [-e] [-E] [-t] [-Ttty-type] [*file*]...

**mm**

mm [*options*] [*files*]  
nroff -mm [*options*] [*files*]  
nroff -cm [*options*] [*files*]  
nmt [*options*] [*files*]  
troff -mm [*options*] [*files*]

**mmt**

mmt [-a] [-D*ddest*] [-e] [-g] [-p] [-t] [-T*tty-type*] [-z] [*file*]...  
 mvt [-a] [-D*ddest*] [-e] [-g] [-p] [-t] [-T*tty-type*] [-z] [*file*]...

**module\_dump**

module\_dump *kernel-file*

**monacct**

See acctsh.

**moo**

moo

**more**

more [-c] [-d] [-f] [-l] [-n] [-s] [-u] [+*linenumber*] [*file*]...  
 more [-c] [-d] [-f] [-l] [-n] [-s] [-u] [+/*pattern*] [*file*]...  
 page [-c] [-d] [-f] [-l] [-n] [-s] [-u] [+*linenumber*] [*file*]...  
 page [-c] [-d] [-f] [-l] [-n] [-s] [-u] [+/*pattern*] [*file*]...

**mount**

mount [-p]  
 mount -a [*f*] [*r*] [*v*] [-t *type*] [-T *type*]  
 mount [-f] [*r*] [*v*] [-t *type*] [-T *type*] [-o *options*] *device-file*  
*mount-point*  
 umount [-v] -h *host*  
 umount -a [*v*]  
 umount [-v] [*device-file*]...  
 umount [-v] [*mount-point*]...

**mountd**

rpc.mountd [-n]

**mptx**

nroff -mptx [*options*] [*files*]  
 troff -mptx [*options*] [*files*]

**ms**

nroff -ms [*nroff-options*]...  
 troff -ms [*troff-options*]...

**mt**

mt [-f*device-file*] *command* [*count*]



**mv**

```
mv [-i] [-f] [-] file1 file2
mv [-i] [-f] [-] file... directory
```

**mv**

```
mvt [-a] [options] [files]
troff [-a] [-rX1] -mv [options] [files]
```

**mvt**

See mmt.

**named**

```
named [-d debuglevel] [-p port#] [bootfile]
```

**ncheck**

```
ncheck [-a] [-i i-node-numbers] [-s] [-Tfile-system-type]
[file-system]
```

**ncstats**

```
ncstats
```

**ndx**

```
ndx subjfile formatter-command-line
```

**neqn**

```
neqn [-dxy] [-fn] [-pn] [-sn] [-] [file]...
```

**netstat**

```
netstat [-a] [-A] [-n] [-f address-family] [kernel]
[memory-interface]
netstat [-h] [-i] [-m] [-n] [-r] [-s] [-f address-family] [kernel]
[memory-interface]
netstat [-I interface] interval [kernel] [memory-interface]
netstat -I interface [-n] [kernel] [memory-interface]
```

**newaliases**

```
newaliases
```

**newconfig**

```
newconfig [-k] [module]... [nomodule]... [nonet] [-v]
```

**newform**

newform [-an] [-bn] [-cchar] [-en] [-f] [-itabspec] [-ln]  
[-otabspec] [-pn] [-s] [file]...

**newfs**

newfs [-b *block-size*] [-c *cylinders-per-group*] [-f *fragment-size*]  
[-i *bytes-per-inode*] [-m *free-space*] [-r *revolutions-per-minute*]  
[-s *size*] [-t *tracks-per-cylinder*] [-v] *device-file type*

**newgrp**

newgrp [-] [group]

**news**

news [-a] [-n] [-s] [items]

**newunix**

newunix [[no]module]...

**nfsd**

nfsd [*nserver*]...  
biod [*nserver*]...

**nfsstat**

nfsstat [-c] [-n] [-r] [-s] [-z]

**nice**

nice [-increment] *command* [*arguments*]

**nl**

nl [-btype] [-ddelim] [-ftype] [-htype] [-iincr] [-lnum] [-nformat]  
[-p] [-ssep] [-vstart#] [-wwidth] *file*

**nm**

nm [-d] [-e] [-f] [-h] [-n] [-o] [-T] [-u] [-v] [-V] [-x] *file*...

**nohup**

nohup *command-line* &

**nroff**

nroff [-e] [-h] [-i] [-mname] [-nstart-no] [-opage-range] [-q]  
[-rletter[*value*]] [-s[pages-per-pause]] [-Ttty-type] [-u[boldening-amt]]  
[-z] [file]...

**nslookup**

```
nslookup
nslookup -server
nslookup host-to-find [server]
```

**nterm****nulladm**

See acctsh.

**number**

number

**od**

```
od [-b] [-c] [-d] [-o] [-s] [-x] [file] [[+]offset [. ] [b]]
```

**otroff**

```
otroff [-cname] [-b] [-f] [-kname] [-mname] [-ppoint-size] [-t]
[-w] [file]...
```

**pac**

```
pac [-c] [-m] [-pprice] [-Pprinter] [-r] [-s] [name]...
```

**pack**

```
pack [-] [-f] file...
pcat file...
unpack file...
```

**page**

See more.

**pagesize**

pagesize

**passwd**

```
passwd [name]
```

**paste**

```
paste file1 file2 ...
paste -dlist file1 file2 ...
paste -s [-dlist] file1 file2 ...
```

**pax**

```
pax [-cimopuvy] [-f archive] [-s replstr] [-t device] [pattern]...
pax -r [-cimnopuvy] [-f archive] [-s replstr] [-t device]
[pattern]...
pax -w [-adimuvy] [-b blocking] [-f archive] [-s replstr]
[-t device] [-x format] [path]...
pax -rw [-ilmopuvy] [-s replstr] [path]... directory
```

**pcat**

See pack.

**pdp11**

See machid.

**pg**

```
pg [-number] [+linenumber] [+/pattern] [-c] [-e] [-f] [-n]
[-p string] [-s] [file]...
```

**pic**

```
pic [-Ttty-type] [-] [file]...
```

**ping**

```
ping [-d] [-r] [-v] host [packet-size] [npackets]
```

**pname**

```
pname [-a] [-c controller] [-d disk] [-s slice] [-t type] name
pname [-p]
pname -a [v]
pname -u device-file...
```

**portmap**

```
portmap
```

**powerdown**

```
powerdown
```

**powerfail**

See brc.

**pr**

```
pr [+pageno] [-columns] [-a] [-d] [-eck] [-f] [-h head] [-ick] [-lk]
[-m] [-nck] [-ok] [-p] [-r] [-sc] [-t] [-wk] [file]...
```

**prctmp**

See acctsh.

**prdaily**

See acctsh.

**printenv**

printenv [*argument*]

**prof**

prof [-a] [-c] [-g] [-h] [-m *mdata*] [-n] [-o] [-s] [-t] [-x] [-z]  
[*objfile*]

**prof**

```
#define MARK
#include <prof.h>
void MARK (name)
```

**prs**

prs [-a] [-c[*date-time*]] [-d[*dataspec*]] [-e] [-l] [-r[*SID*]] *file...*

**prtacct**

See acctsh.

**ps**

ps [-a] [-c*corefile*] [-d] [-e] [-f] [-g*grplist*] [-l] [-n*namelist*]  
[-p*proclist*] [-s*swapdev*] [-t*termlist*] [-u*uidlist*]

**psbanner**

See transcript.

**pscomm**

See transcript.

**psdit**

psdit [-F *fontdir*] [-o *list*] [-p *prologue*] [*file*]

**psinterface**

See transcript.

**psroff**

psroff [-t] [[-a] [-i] [-mname] [-nN] [-olist] [-q] [-raN] [-sM] [-Tdest]] [[-ddest] [-C class] [-J name] [-h] [-nx] [-P printer] [-r] [-s] [-m] [-w]] [file]...

**psrv**

See transcript.

**pstat**

pstat [-a] [-b] [-f] [-i] [-m] [-nname] [-p] [-rrate] [-t] [-uaddress] [-v] [file]

**pstext**

See transcript.

**ptx**

ptx [-b *break*] [-f] [-g *gap*] [-i *ignore*] [-r] [-t] [-w *n*] [*input* [*output*]]  
 ptx [-b *break*] [-f] [-g *gap*] [-o *only*] [-r] [-t] [-w *n*] [*input* [*output*]]

**pwck**

pwck [file]  
 grpck [file]

**pwd**

pwd

**query**

query [-t[seconds]] [-r[response]] [-m]

**quiz**

quiz [-ifile] [-t] [category1 category2]

**rain**

rain

**rc**

See brc.

**rcp**

rcp file1 file2  
 rcp [-r] file... directory

**rcs**

r`cs` [-a*logins*] [-A*oldfile*] [-c*string*] [-e[*logins*]] [-i] [-l[*rev*]] [-L] [-n*name[: rev]*] [-N*name[: rev]*] [-o*orange*] [-q] [-s*state[: rev]*] [-t[*txtfile*]] [-u[*rev*]] [-U] *files*

**rcsdiff**

r`csdiff` [-b] [-c] [-e] [-f] [-h] [-i] [-n] [-t] [-w] [-r*rev1*] [-r*rev2*] *file ...*

**r`csintro`****r`csmerge`**

r`csmerge` -r*rev1* [-r*rev2*] [-p] *file*

**r`cvhex`**

r`cvhex` [-p *port*] [-c *command*] *file*

**r`dist`**

r`dist` [-b] [-d*var=value*] [-f*distfile*] [-h] [-i] [-m*host*] [-n] [-q] [-R] [-v] [-w] [-y] [*name*]...  
r`dist` [-b] -c *name*... [-h] [-i] [-n] [-q] [-R] [-v] [-w] [-y] [*login@ host*] [:*dest*]

**r`dump`**

See `dump.bsd`.

**r`ead_disk`**

r`ead_disk`

**r`eboot`**

r`eboot` [-h] [-l] [-n] [-q]

**r`ed`**

See `ed`.

**r`efer`**

r`efer` [-a[*n*]] [-b] [-B[*l.m*]] [-c *keys*] [-e] [-f*n*] [-k*x*] [-l[*m,n*]] [-n] [-p *bib*] [-P] [-s *keys*] [-S] [*file*]...

**r`egcmp`**

r`egcmp` [-] *file*...

**regexp**

```
#define INIT declarations
#define GETC() getc-code
#define PEEKC() peekc-code
#define UNGETC (c) ungetc-code
#define RETURN (pointer) return-code
#define ERROR (val) errors-code
#include <regexp.h>
char *compile(instring, expbuf, endbuf, eof)
char *instring, *expbuf, *endbuf;
int eof ;
int step(string, exbuf)
char *string, *exbuf;
extern char *loc1, *loc2, *locs;
extern int circf, sed, nbra;
```

**reject**

```
reject [-r reason]] [destination]...
```

**remlogin**

```
remlogin -h host-name terminal-type
remlogin -h host-name -p
remlogin -r host-name
```

**remsh**

```
remsh rhost [-l username] [-n] [command]
```

**remshd**

```
in.remshd host.port
```

**reset**

See tset.



**restore**

```

restore i [b] [f] [F] [h] [m] [s] [v] [y] [bfFs-arg]...
restore r [b] [f] [F] [h] [m] [s] [v] [y] [bfFs-arg]...
restore R [b] [f] [F] [h] [m] [s] [v] [y] [bfFs-arg]...
restore t [b] [f] [F] [h] [m] [s] [v] [y] [bfFs-arg]... [archived-file]...
restore x [b] [f] [F] [h] [m] [s] [v] [y] [bfFs-arg]... [archived-file]...
rrestore i [b] [f] [F] [h] [m] [o] [s] [-Ttype] [v] [y] [bfFs-arg]...
rrestore r [b] [f] [F] [h] [m] [o] [s] [-Ttype] [v] [y] [bfFs-arg]...
rrestore R [b] [f] [F] [h] [m] [o] [s] [-Ttype] [v] [y] [bfFs-arg]...
rrestore t [b] [f] [F] [h] [m] [o] [s] [-Ttype] [v] [y] [bfFs-arg]...
    [archived-file]...
rrestore x [b] [f] [F] [h] [m] [o] [s] [-Ttype] [v] [y] [bfFs-arg]...
    [archived-file]...

```

**rev**

```
rev [file]...
```

**revnetgroup**

```
revnetgroup [-h] [-u]
```

**rexecd**

```
in.rxecd host.port
```

**rez**

```
rez [-a] [-align word-type] [-c reator] [-d macro-assignment]...
[-i include-dir]... [-o output-file] [-ov] [-p] [-rd] [-ro]
[-s res-include-dir]... [-t type] [-u macro]
[resource-description-file]...

```

**rlog**

```
rlog [-ddates] [-h] [-l[lockers]] [-L] [-rrevisions] [-R] [-sstates]
[-t] [-w[logins]] file...
```

**rlogin**

rlogin *rhost* [-8] [-ec] [-l *username*]

**rlogind**

in.rlogind *host.port*

**rm**

rm [-f] [-i] [-r] *file...*  
rmdir *dir...*

**rmail**

rmail [-D*domain-name*] [-T] *login-name ...*

**rmdel**

rmdel -r *SID [file]...*

**rmdir**

See rm.

**robots**

robots

**roffbib**

roffbib [-e] [-h] [-m *name*] [-n*start-no*] [-o*page-range*]  
-r*letter[integer]* [-s*N*] [-T*tty-type*] [-x] [*file*]...

**route**

route [-f] [-n] *command [net | host] destination gateway [metric]*

**routed**

in.routed [-d] [-g] [-q] [-s] [-t] [*logfile*]

**rpc.lockd**

rpc.lockd [-g *grace-period*] [-t *timeout*]

**rpc.statd**

rpc.statd

**rpc.yppasswdd**

See yppasswdd.

**rpcgen**

```
rpcgen input-file  
rpcgen -c [-o output-file] [input-file]  
rpcgen -h [-o output-file] [input-file]  
rpcgen -l [-o output-file] [input-file]  
rpcgen -m [-o output-file] [input-file]  
rpcgen -s transport [-o output-file] [input-file]
```

**rpcinfo**

```
rpcinfo -p [host]  
rpcinfo -u host program-number version-number  
rpcinfo -t host program-number version-number
```

**rrestore**

See restore.

**rsh**

See sh.

**rstatd**

```
rpc.rstatd
```

**runacct**

```
runacct [mmdd [state]]
```

**rup**

```
rup [-h] [-l] [-t] [host]...
```

**ruptime**

```
ruptime [-a] [-l] [-t] [-u]
```

**rusers**

```
rusers [-a] [-h] [-i] [-l] [-u] [host]...
```

**rusersd**

```
rpc.rusersd
```

**rwall**

```
rwall hosts  
rwall -n netgroup...  
rwall -h host -n netgroup
```

**rwalld**

rpc.rwalld

**rwho**

rwho [-a]

**rwhod**

in.rwhod

**sa1**

See sadc.

**sa2**

See sadc.

**sact**

sact [-] *file...*

**sadc**

sadc [*t n*] [*file*]

sa1 [*t n*]

sa2 [-a] [-A] [-b] [-c] [-etime] [-isec] [-m] [-q] [-stime] [-u] [-v]  
[-w] [-y]

**sag**

sag [-e *time*] [-f *file*] [-i *sec*] [-s *time*] [-T *term*] [-x *spec*]  
[-y *spec*]

**sar**

sar [-a] [-A] [-b] [-c] [-m] [-q] [-u] [-v] [-w] [-y] [-ofile] *t* [*n*]

sar [-a] [-A] [-b] [-c] [-etime] [-f*file*] [-isec] [-m] [-q] [-stime]  
[-u] [-v] [-w] [-y]

**sccs**

sccs *command* [*flags*] [*args*] [-d*path*] [-p*path*] [-r]

**sccsdiff**

sccsdiff -rdelta -rdelta2 [-p] [-sn] *file...*

**sccstorcs**

sccstorcs [-t] [-v] *sccsfile ...*

**script**

script [-a] *file*

**sdb**

sdb [-w] [-W] [*objfile* [*corfile* [*directory*]]]

**sdiff**

sdiff [-l] [-o *output*] [-s] [-w *cols*] *file1 file2*

**sed**

sed [-n] -e *command-line-script* [*file*] ...  
sed [-n] -f *scriptfile* [*file*] ...

**sendmail**

sendmail -bd -bi -bm -bp -bs -bt -bv -bz -C*configuration-file*  
-d*debug-level* -F*full-name* -f*fname* -hhop-count -n  
-o*configuration-option value* -q[*interval*] -r*name* -t -v [*address*]...

**setfile**

setfile [-a*attribute-string*] [-c*creator*]  
[-l*horizontal-pixels, vertical-pixels*] [-t*type*] [*data-file*]...

**setport**

setport -o [-s *baud-rate*] *tty*...  
setport -r [-s *baud-rate*] *tty*...

**settimezone**

settimezone

**sh**

sh [-c *string*] [-i] [-r] [-s] [-a] [-e] [-f] [-h] [-k] [-n] [-t] [-u]  
[-v] [-x] [*args*]...  
rsh [-c *string*] [-i] [-r] [-s] [-a] [-e] [-f] [-h] [-k] [-n] [-t] [-u]  
[-v] [-x] [*args*]...

**shl**

shl

**showmount**

showmount [-a] [-d] [-e] [*host*]

**shutacct**

See acctsh.

**shutdown**

shutdown [-ginterval] [-h] [-iinitstate] [-k] [-n] [-r] [-y]  
[timeout] [warning-message]

**size**

size [-d] [-o] [-V] [-x] file...

**slattach**

slattach [+c] [-c] [+e] [-e] [+i] [-i] tty local-name remote-name  
[baud-rate]

**slattconf**

slattconf [+c] [-c] [+e] [-e] [+i] [-i] tty baud-rate client-address  
cslip-server-address [ifconfig-argument]...

**sleep**

sleep time

**slip**

slip

**sno**

sno [file]...

**soelim**

soelim [file]...

**sort**

sort [-b] [-c] [-d] [-f] [-i] [-m] [-M] [-n] [-o output] [-r] [-tx]  
[-u] [-y [kmem]] [-zrecsz] [+pos1 [-pos2]] [file...]

**sortbib**

sortbib [-skeys] database...

**spell**

spell [-v] [-b] [-x] [-l] [+local-file] [file]...  
hashmake  
spellin *n*  
hashcheck *spelling-list*

**spellin**

See spell.

**spline**

spline [-a] [-k] [-n] [-p] [-xlower *upper*]

**split**

split [-] [-n] [*file* [*output-file*]...]

**spray**

spray *host* [-c *count*] [-l *length*]

**sprayd**

rpc.sprayd

**ssp**

ssp [-] [*name*]...

**startmac**

startmac [-f *findername*] [-m *memsize*] [-o *name*[=*value*]]  
[-P *patchfile*] [-s *sysfolder*] [-S *systemfile*]  
startmac24 [-f *findername*] [-m *memsize*] [-o *name*[=*value*]]  
[-P *patchfile*] [-s *sysfolder*] [-S *systemfile*] [-u *user*] *startup-app*

**startmac24**

See startmac.

**StartMonitor**

StartMonitor

**startmsg**

startmsg -  
startmsg [-d *pcntdone*] [-m *msgselector*] [-n *nextphase*]  
[-p *numphases*] [-q] [*substr1*...*substr4*]

**startup**

startup

**startup**

See acctsh.

**StartupShell****stat**

```
#include <sys/types.h>  
#include <sys/stat.h>
```

**statd**

See `rpc.statd`.

**stdhosts**

`stdhosts file`

**strings**

`strings [-] [-o] [-number] file...`

**strip**

`strip [-l] [-r] [-s] [-V] [-x] file...`

**stty**

`stty [-a] [-g] [-n file] [options]`

**style**

`style [-a] [-e] [-l num] [-ml] [-mm] [-p] [-P] [-r num] file...`

**su**

`su [-] [name[arg ...]]`

**subj**

`subj file...`

**sum**

`sum [-r] file...`

**sumdir**

`sumdir [directories]`

**swap**

`swap -a [swapdev [swapl原因 [swaplen]]]`

`swap -d swapdev [swapl原因]`

`swap -l`

**sync**

`sync`

**sysinitrc**

See `brc`.



**sysline**

sysline [+seconds] [-b] [-c] [-d] [-D] [-e] [-h] [-H remote] [-i]  
[-j] [-l] [-m] [-p] [-q] [-r] [-s]

**syslogd**

syslogd [-d] [-fconfigfile] [-mmarkinterval]

**systemfolder**

systemfolder [-f] [-u user]  
systemfolder24 [-f] [-u user]

**systemfolder24**

See systemfolder.

**tabs**

tabs [tabspec] [+m[n]] [-Ttype]

**tail**

tail [±[number]][[b][f]] [file]  
tail [±[number]][[c][f]] [file]  
tail [±[number]][[l][f]] [file]

**talk**

talk user [ttyname]

**talkd**

in.talkd

**tar**

tar [-]c[0...7[density]][ilvBdfs] [bBdfs-arg]... file...  
tar [-]r[0...7[density]][ilvBdfs] [bBdfs-arg]... file...  
tar [-]t[0...7][ivw][f archive] [file-in-archive]...  
tar [-]u[0...7[density]][ilvBdfs] [bBdfs-arg]... file...  
tar [-]x[0...7][timovw][f archive] [file-in-archive]...

**tbl**

tbl [-TX] [file]...

**tc**

tc [-a n] [-e] [-o list] [-t] [file]...

**tcb**

command-line | tcb >/dev/rmt/tcx

**tcp**

```
#include <sys/socket.h>
#include <netinet/in.h>
s = socket(AF_INET, SOCK_STREAM, 0);
```

**tee**

tee [-i] [-a] *file*...

**telinit**

See init.

**telnet**

```
telnet host [port]
telnet
```

**telnetd**

in.telnetd

**term****test**

test [*expr*]

**TextEditor**

TextEditor [*file*]...

**tftp**

tftp [*host*]

**tftpd**

in.tftpd [-d] [-s] [*home-directory*]

**tic**

tic [-v[*n*]] *file*...

**time**

time *command*

**timex**

timex [-o] [-p[fhkmrt]] [-s] *command*

**tip**

tip [-v] [-speed] *system-name*  
 tip [-v] [-speed] *phone-number*

**touch**

touch [-a] [-c] [-m] [*mmdhmm*[*yy*]] *file...*

**tp**

tp d[[0..7] [i] [m] [v] [w]] [*file-in-archive*]...  
 tp r[[0..7] [c] [i] [m] [v] [w]] [*file-in-archive*]...  
 tp t[[0..7] [i] [m] [v] [w]] [*file-in-archive*]...  
 tp u[[0..7] [c] [i] [m] [v] [w]] [*file-in-archive*]...  
 tp x[[0..7] [f] [i] [m] [v] [w]] [*file-in-archive*]...

**tplot**

tplot [-T*terminal* [-e *raster-file*]]

**tput**

tput [-T*type*] *capname*

**tr**

tr [-c] [-d] [-s] [*string1* [*string2*]]

**transcript**

psbanner  
 pscomm  
 psinterface  
 psrv  
 pstext

**trek**

trek [[-a] *file*]

**troff**

troff [-] [-a] [-i] [-m*name*] [-n*N*] [-olist] [-q] [-ra*N*] [-s*N*]  
 [-T*dest*] [*file...*]

**troff****trpt**

trpt [-a] [-j] [-phex-address] [-s] [-t] [*system*[*core*]]

**true**

true  
false

**tset**

tset [-] [-a *type*] [-A] [-d *type*] [-ec] [-Ec] [-kc] [-l] [-m *port*]  
[-p *type*] [-Q] [-r] [-s] [-S]  
reset

**tsort**

tsort [*file*]

**ttt**

ttt  
cubic

**tty**

tty [-l] [-s]

**tty\_add**

tty\_add [-r] [-g*label*] *device-file-name*...  
tty\_kill

**tty\_kill**

See tty\_add.

**tunefs**

tunefs [-a *maxcontig*] [-d *rotdelay*] [-e *maxbpg*] [-m *free-space*]  
[-o *optimization*] [-p] *disk-device-file*

**turnacct**

See acctsh.

**twinkle**

twinkle [-] [+] [s *file*] [*density1*] [*density2*]]

**types**

#include <sys/types.h>

**tzdump**

tzdump [-c *cutoffyear*] [-v] [*zone*]...

**tzic**

```
tzic [-d directory] [-l localtime-link] [-L leap-file]
[-p posixrules-link] [-s] [-v] [source-file]...
```

**u3b**

See machid.

**u3b15**

See machid.

**u3b2**

See machid.

**u3b5**

See machid.

**ucbdiff**

```
ucbdiff [-b] [-c] [-e] [-f] [-h] [-i] [-l] [-n] [-r] [-s] [-S file]
[-t] [-w] dir1 dir2
ucbdiff [-b] [-c] [-e] [-f] [-h] [-i] [-n] [-t] [-w] file1 file2
ucbdiff [-b] [-Dstring] [-i] [-w] file1 file2
```

**ucbdiff3**

```
ucbdiff3 [-e] [-E] [-x[-3]] [-X[-3]] ver1 ver2 ver3
```

**udp**

```
#include <sys/socket.h>
#include <netinet/in.h>
s=socket(AF_INET, SOCK_DGRAM, 0);
```

**ul**

```
ul [-t terminal] [file]...
```

**umount**

See mount.

**uname**

```
uname [-a] [-m] [-n] [-r] [-s] [-v]
```

**uncompact**

See compact.

**uncompress**

See compress.

**uncompressdir**

See compress.

**unexpand**

See expand.

**unget**

unget [-n] [-r*SID*] [-s] *file...*

**uniq**

uniq [-c] [-d] [+*num*] [-*num*] [-u] [*infile* [*outfile*]]

**units**

units

**unpack**

See pack.

**updater**

updater [d] [r] [u] *local remote...*

updater [p] [r] [u] *local remote...*

updater [t] [r] [u] *local remote...*

**uptime**

uptime

**users**

users [*file*]

**uucheck**

uucheck [-v] [-x*debug-level*]

**uucico**

uucico [-c*device-type*] [-d*spool-directory*] [-f] [-i*interface*]

[-r*mode*] [-s*system*] [-u*login-name*] [-x*debug-level*]

**uucleanup**

uucleanup [-C*days*] [-D*days*] [-m*string*] [-o*days*] [-s*system*]

[-W*days*] [-X*days*] [-x*debug-level*]

**uucp**

uucp [-c] [-C] [-d] [-f] [-ggrade] [-j] [-m] [-nlogin-name] [-r]  
[-sfile] [-xdebug-level] *source-file destination-file*

**uucpd**

/etc/uucpd

**uudecode**

See uuencode.

**uudemon.admin**

uudemon.admin

**uudemon.cleanup**

uudemon.cleanup

**uudemon.hour**

uudemon.hour

**uudemon.poll**

uudemon.poll

**uuencode**

uuencode [*source-file*] *decoded-name*  
uudecode [*encoded-file*]

**uuglist**

uuglist [-l] [-u] [-xdebug-level]

**uulog**

uulog [-cqX] [-l[hours]] [-lines] [-fsystem] [system]...  
uulog [-cqX] [-l[hours]] [-lines] [-ssystem] [system]...

**uuname**

uuname [-c] [-l]

**uupick**

See uuto.

**uusched**

uusched [-udebug-level] [-xdebug-level]

**uusend**

uusend [-m *file-permission*] -r *sourcefile system!*...*remotefile*

**uustat**

uustat [-a] [-S*job-status*] [[-j] [-ssystem]] [-u*login-name*]  
 [-x*debug-level*]  
 uustat -k*job-id* [-n] [-x*debug-level*]  
 uustat -m [-x*debug-level*]  
 uustat -p [-x*debug-level*]  
 uustat -q [-x*debug-level*]  
 uustat -r*job-id* [-n] [-x*debug-level*]  
 uustat -tssystem [-dminutes] [-c] [-x*debug-level*]

**uuto**

uuto [-m] [-p] *file... destination*  
 uupick [-ssystem]

**Uutry**

Uutry [-c*device-type*] [-r] [-x*debug-level*] *system*

**uux**

uux [-] [-a*aname*] [-b] [-C] [-c] [-ggrade] [-j] [-n] [-p] [-r]  
 [-s*file*] [-x*debug-level*] [-z] *command-string*

**uuxqt**

uuxqt [-ssystem] [-x*debug-level*]

**val**

val-  
 val [-mname] [-rSID] [-s] [-ytype] *file...*

**values**

#include <values.h>

**vax**

See machid.

**vc**

vc [-a] [-cchar] [-s] [-t] [*keyword=value*]...

**vedit**

See vi.



**version**

version *file*...

**vi**

vi [+*command*] [-l] [-r [*file*]] [-R] [-t *tag*] [-wn] [-x] *name*...  
 view [+*command*] [-l] [-r [*file*]] [-R] [-t *tag*] [-wn] [-x] *name*...  
 vedit [+*command*] [-l] [-r [*file*]] [-R] [-t *tag*] [-wn] [-x] *name*...

**view**

See vi.

**vipw**

vipw

**volcopy**

volcopy [-a] [-bpidensity] [-buf] [-feetsize] [-reelnum] [-s]  
*fsname special1 volname1 special2 volname2*  
 labelit *special [fsname volume [-n]]*

**w**

w [-h] [-l] [-s] [-u] [*user*]

**wall**

wall

**wc**

wc [-*chunk-size*] [*file*]...

**what**

what [-s] *file*...

**whatis**

whatis *command*...

**whereis**

whereis [-b] [-B *dir* [-f]] [-m] [-M *dir* [-f]] [-s] [-S *dir* [-f]]  
 [-u] *file*...

**which**

which [*name*]...

**who**

who [-a] [-b] [-d] [-H] [-l] [-p] [-s] [-t] [-T] [-u] [*file*]  
who -r [-d] [-l] [-p] [-u] [*file*]  
who -q [*file*]  
who am i  
who am I

**whoami**

whoami

**whodo**

whodo

**worm**

worm [*size*]

**worms**

worms [-field] [-length *n*] [-number *n*] [-trail]

**write**

write *user* [*line*]

**wtmpfix**

See fwtmp.

**wump**

wump

**xargs**

xargs [-eofstr] [-ireplstr] [-l*number*] [-n*number*] [-p] [-ssize]  
[-t] [-x] [*command* [*cmd-args*]]

**xstr**

xstr [-] [-c] [*file*]

**yacc**

yacc [-d] [-l] [-t] [-v] *grammar*

**yes**

yes [*expletive*]

**ypbind**

See ypserv.

**ypcat**

```
ypcat [-d domain-name] [-k] [-t] map-or-nick-name  
ypcat -x
```

**ypinit**

```
ypinit -m  
ypinit -s server-name
```

**ypmake**

```
cd /etc/yp; make [set-name] [variable=value...]
```

**ypmatch**

```
ypmatch [-d domain] [-k] [-t] key ... nickname-or-map-name  
ypmatch -x
```

**yppasswd**

```
yppasswd [login-name]
```

**yppasswdd**

```
rpc.yppasswdd file [-m make-arg...]
```

**yppoll**

```
yppoll [-h host] [-d domain] mapname
```

**yppush**

```
yppush [-d domain-name] [-v] mapname
```

**ypserv**

```
ypserv  
ypbind [-s] [-secure] [-v] [-ypset] [-ypsetme]
```

**ypset**

```
ypset [-V1] [-d domain-name] [-h host-name] server  
ypset [-V2] [-d domain-name] [-h host-name] server
```

**ypwhich**

```
ypwhich [-d domain-name] [-V1] [host-name]  
ypwhich [-d domain-name] [-V2] [host-name]  
ypwhich [-d domain-name] [[-t] -m [map-or-nickname]]  
ypwhich -x
```

**ypxfr**

`ypxfr [-c] [-d domain-name] [-f] [-h host-name] map-name`  
`ypxfr -d domain-name [-C tid prog ipadd port] map-name`

**zcat**

See compress.

**zcmp**

See compress.

**zdiff**

See compress.

**zmore**

See compress.

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`wc(1)` — counts characters, words, and lines in a file

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- `ksh(1)` — runs the Korn shell, an enhanced command interpreter that is backward-compatible with the Bourne shell (`sh`)
- `remsh(1N)` — invokes to a shell on a remote system
- `sh(1)` — runs the Bourne shell
- `shl(1)` — manages the layering of multiple shells
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- `cmdo(1)` — builds command lines interactively

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- `echo(1)` — echoes its arguments
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- `xargs(1)` — builds arguments based on the standard input, passing them in batches to the specified command which is executed enough times to deplete all the arguments
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- `getopt(3C)` — get option letter from argument vector
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`a64l(3C)` — convert between long integer and base-64 ASCII string

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`cp(1)` — copies files

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`csplit(1)` — splits files into sections

`dd(1)` — converts and copies a file

`fcvt(1)` — converts a file in one storage format to a different storage format

`ln(1)` — makes links

`pax(1)` — copies files to or from an archive in an IEEE format

`rcp(1C)` — copies files between two systems

`split(1)` — splits a file into a specified number of pieces

`tar(1)` — copies files to or from a `tar` archive

`tp(1)` — copies files to or from a `tp` archive

`uucp(1C)` — copies files from one system to another system

`uuto(1C)` — provide an easy interface to the `uucp` command, using the public directories

`bcopy(1M)` — copies blocks interactively

`dcopy(1M)` — copies System V File System-style file systems for optimal access time

`dump.bsd(1M)` — create a `dump.bsd` archive by making copies of files from a given file system

`restore(1M)` — retrieve files from within a `dump.bsd` archive into an existing file system

`volcopy(1M)` — copy file systems with label checking

`blt(3C)` — block transfer data

`cpio(4)` — format of `cpio` archive

`tar(4)` — format of `tar` header

### core image

`fsync(2)` — synchronize a file's in-core state with that on disk  
`core(4)` — format of core image file

### cosine

`cos(3F)` — Fortran cosine intrinsic function  
`cosh(3F)` — Fortran hyperbolic cosine intrinsic function  
`trig(3M)` — provide trigonometric functions

### counters

`sumdir(1)` — sums and counts the characters within the files of the given directories  
`wc(1)` — counts characters, words, and lines in a file

### craps

`craps(6)` — plays the game of craps

### crashes

`errdead(1M)` — extracts error records from a crash dump  
`statd(1M)` — provide crash and recovery monitoring for network locking services

### creating new objects

`mkdir(1)` — creates a directory  
`mkshlib(1)` — creates a shared library  
`mkstr(1)` — creates an error message file by massaging C source programs  
`mkfs1b(1M)` — constructs a file system with 512-byte blocks  
`mkfs(1M)` — constructs a System V file system  
`mklost+found(1M)` — makes a directory named `lost+found` to be used by `fsck`  
`mknod(1M)` — builds a device file  
`mkslipuser(1M)` — creates or updates the Compressed Serial Line/Internet Protocol (CSL/IP) database  
`newconfig(1M)` — generates an up-to-date kernel  
`newfs(1M)` — makes a Berkeley 4.2 (UFS) file system  
`newunix(1M)` — manipulates the files that determine the configuration of a new kernel  
`ypmake(1M)` — rebuilds the Network Information Service (NIS) maps  
`creat(2)` — creates a new file or rewrites an existing one  
`fork(2)` — creates a new process  
`mkdir(2)` — makes a directory file  
`mknod(2)` — makes a directory, or a special or ordinary file  
`umask(2)` — set and get file creation mask  
`mkfifo(3P)` — makes a FIFO special file  
`mktemp(3C)` — makes a unique filename  
`tmpfile(3S)` — creates a temporary file  
`tmpnam(3S)` — create a name for a temporary file

### **cribbage**

cribbage(6) — plays the game of cribbage

### **cross-references**

cxref(1) — generates a C program cross-reference

lorder(1) — finds the ordering relation for an object library

macref(1) — produces a cross-reference listing of macro files

### **current directory**

pwd(1) — prints the name of the working directory

chdir(2) — changes the working directory

getcwd(3C) — gets the pathname of the current working directory

getwd(3) — gets the current working directory pathname

### **current host**

gethostid(2N) — get/set unique identifier of current host

gethostname(2N) — get/set name of current host

### **current user**

whoami(1) — prints effective current user ID

### **daemons**

automount(1M) — mounts Network File System (NFS) when needed

cron(1M) — runs the clock daemon

errdemon(1M) — calls the error-logging daemon

errstop(1M) — terminates the error-logging daemon

inetd(1M) — starts Internet servers when needed

init(1M) — spawn general processes

lockd(1M) — handle local and remote lock requests

lpd(1M) — supports the Berkeley print spooler ." 4.2 line-printer daemon

nfsd(1M) — invoke the NFS daemons

routed(1M) — invokes the network routing daemon

nfssvc(2) — provides NFS daemons

### **DARPA Internet**

ftp(1N) — transfers files by using the DARPA Internet File Transfer Protocol (FTP)

nslookup(1) — interactively queries name servers

rmail(1) — handles remote mail received via UUCP

tftp(1C) — transfers files via the Trivial File Transfer Protocol (TFTP)

ftpd(1M) — provide Internet File Transfer Protocol (FTP) service

inetd(1M) — starts Internet servers when needed

named(1M) — provides Internet domain name service

portmap(1M) — converts RPC program numbers into DARPA protocol port numbers

sendmail(1M) — sends mail

stdhosts(1M) — converts Internet addresses to standard form

telnetd(1M) — supports the DARPA standard TELNET protocol

tftpd(1M) — responds to requests to use the DARPA Trivial File Transfer Protocol

inet(3N) — provide Internet address manipulation routines  
resolver(3N) — provide resolver routines  
networks(4N) — network name database  
protocols(4N) — protocol name database  
resolv.conf(4) — configuration file for resolver routines  
servers(4) — Internet server database  
services(4N) — service name database  
arp(5P) — Address Resolution Protocol  
icmp(5P) — Internet Control Message Protocol  
inet(5P) — Internet protocol family  
ip(5P) — Internet Protocol  
tcp(5P) — Internet Transmission Control Protocol  
udp(5P) — Internet User Datagram Protocol

#### **DASI 300 terminal**

300(1) — filter text containing printer control sequences for a DASI terminal

#### **DASI 450 terminal**

450(1) — filters text containing printer control sequences for the DASI terminal

#### **data, blocking of**

dd(1) — converts and copies a file

tcb(1) — blocks data to 8K for direct input to /dev/rmt/tcx

#### **data, redirecting**

cat(1) — catenates and displays the contents of files

csh(1) — runs the C shell, a command interpreter with C-like syntax

ksh(1) — runs the Korn shell, an enhanced command interpreter that is backward-compatible with the Bourne shell (sh)

sh(1) — runs the Bourne shell

tee(1) — transcribes data

#### **data streams**

line\_sane(1M) — pushes streams line disciplines

fclose(3S) — close or flush a stream

ferror(3S) — stream status inquiries

fopen(3S) — open a stream

fread(3S) — produce binary input/output

fseek(3S) — reposition a file pointer in a stream

getc(3S) — get character or word from a stream

gets(3S) — get a string from a stream

line\_push(3) — routine used to push streams line disciplines

printf(3S) — format and output string and numeric data

putc(3S) — put a character or word on a stream

puts(3S) — put a string on a stream

rcmd(3N) — routines for returning a stream to a remote command

rexec(3N) — returns a stream to a remote command

- scanf(3S) — convert formatted input
- setbuf(3S) — assign buffering to a stream
- ungetc(3S) — pushes a character back into input stream
- streams(7) — provides an interface for character I/O

#### **data types**

- ftype(3F) — explicit Fortran type conversion
- xdr(3N) — provide library routines for external data representation
- types(5) — primitive system data types

#### **Datagrams**

- ddp(3N) — provide an AppleTalk Datagram Delivery Protocol (DDP) interface
- udp(5P) — Internet User Datagram Protocol

#### **date and time**

- cal(1) — displays a calendar
- calendar(1) — provides a reminder service
- date(1) — displays and sets the date
- leave(1) — reminds you when you have to leave
- cron(1M) — runs the clock daemon
- settimezone(1M) — sets the local time zone
- gettimeofday(2) — get/set date and time
- stime(2) — set time
- time(2) — get time
- ctime(3) — convert date and time to ASCII
- tzfile(4) — time-zone information
- nvr(7) — provides an interface to nonvolatile memory

#### **debuggers**

- adb(1) — debugs executable programs
- ctrace(1) — debugs a C program
- dbx(1) — debugs and executes programs
- sdb(1) — symbolic debugger
- fsdb(1M) — debugs the file system
- ping(1M) — exercises the TCP/IP network by sending Internet Control Message Protocol (ICMP) packets to a named host
- lo(5) — software loopback network interface

#### **decompiler**

- derez(1) — decompiles a resource file

#### **default values**

- at\_cho\_prn(1) — allows you to choose a default printer on the AppleTalk internet
- chsh(1) — changes the default login shell
- umask(2) — set and get file creation mask
- finstallrc(4) — finstall default configuration file
- shells(4) — shell pathnames file

### defaults, shell and session type

`CommandShell(1)` — manages command-interpretation windows and moderates access to the A/UX console window  
`chsh(1)` — changes the default login shell  
`Login(1M)` — logs you in to A/UX by using a graphical user interface  
`shells(4)` — shell pathnames file

### delayed execution

`at(1)` — run commands at a later time  
`crontab(1)` — aids in the use of the `cron` process scheduling program  
`sleep(1)` — suspends the system for a specified interval of time  
`cron(1M)` — runs the clock daemon  
`pause(2)` — suspends a process until signal

### deleting

`cancel(1)` — cancels print requests spooled through the `lp` command  
`colrm(1)` — removes columns from a file  
`cut(1)` — cuts out selected fields of each line of a file  
`deroff(1)` — removes `nroff/troff`, `tbl`, and `eqn` constructs  
`ipcrm(1)` — removes interprocess communications facilities  
`kill(1)` — terminates a process  
`lprm(1)` — removes jobs from the line printer spooling queue for a Berkeley file system (4.2)  
`rm(1)` — remove files or directories  
`rmdel(1)` — removes a delta from an SCCS file  
`dev_kill(1M)` — removes device files from a directory  
`killall(1M)` — kills all active processes  
`flock(2)` — applies or removes an advisory lock on an open file  
`rmdir(2)` — remove a directory file  
`unlink(2)` — remove directory entry  
`unmount(2)` — remove a file system  
`insque(3N)` — insert/remove element from a queue

### delta files (SCCS)

`cdc(1)` — changes the delta commentary of an SCCS delta  
`comb(1)` — combines SCCS deltas  
`delta(1)` — makes a delta (change) to an SCCS file  
`rmdel(1)` — removes a delta from an SCCS file  
`sact(1)` — displays who has checked a Source Code Control System (SCCS) file out for editing

### description files, troff fonts

`makedev(1)` — prepares `troff` description files  
`afm(4)` — Adobe POSTSCRIPT font metrics file format  
`font(5)` — description files for device-independent `troff`



## **descriptor tables**

`getdtablesize(2N)` — gets descriptor table size

## **descriptors, general**

`close(2)` — closes a file descriptor

`dup(2)` — duplicates a descriptor

`dup2(3N)` — duplicates a descriptor

## **desktop, Macintosh**

`CommandShell(1)` — manages command-interpretation windows and moderates access to the A/UX console window

## **device description files**

`printcap(4)` — printer-capability database

`termcap(4)` — terminal capability database

`terminfo(4)` — terminal capability database

## **device file management**

`tty(1)` — obtains the device filename for the terminal or CommandShell window where it is invoked

`dev_kill(1M)` — removes device files from a directory

`devnm(1M)` — displays the current device name

`mknod(1M)` — builds a device file

`pname(1M)` — associates named partitions with device files

`tty(7)` — controls the terminal interface

## **device files, overview**

`intro(7)` — introduces device drivers and interfaces

## **device-specific commands**

`clear(1)` — clears the terminal screen

`eject(1)` — ejects a diskette from the drive

`iw2(1)` — prepares data to be printed on the Apple ImageWriter II printer

`mt(1)` — manipulates magnetic tape media

`stty(1)` — sets the modes for a terminal

`tabs(1)` — sets the tab stops on a terminal

`tcb(1)` — blocks data to 8K for direct input to `/dev/rmt/tcx`

`keyset(1M)` — sets the keyboard for the console

## **Diablo 1620 printer**

`450(1)` — filters text containing printer control sequences for the DASI terminal

## **dialog boxes, constructing Macintosh alert**

`macquery(1M)` — posts a Macintosh alert box to query the user

## **dialog boxes, Macintosh**

`cmdo(1)` — builds command lines interactively

`Login(1M)` — logs you in to A/UX by using a graphical user interface

`macquery(1M)` — posts a Macintosh alert box to query the user

### **dialup communication**

`cu(1C)` — establishes an interactive connection with another system  
`kermit(1C)` — invokes the Kermit file-transfer program  
`tip(1C)` — establishes a connection to a remote system  
`uucp(1C)` — copies files from one system to another system  
`uux(1C)` — runs a command on a remote system  
`slip(1M)` — assigns a serial line to a network interface  
`uucico(1M)` — transfers files as specified by `uucp` work files  
`dial(3C)` — establishes an out-going terminal line connection  
`dialup(4)` — modem escape sequence file  
`phones(4)` — remote host telephone number database

### **differences**

`bdiff(1)` — compares the difference between two large files that are too big for `diff` to handle  
`cmp(1)` — compares two files  
`diff3(1)` — compares three versions of a file  
`diff(1)` — compares two files or directories for any differences  
`diffmk(1)` — marks the differences between two files  
`dircmp(1)` — compares the contents of two directories  
`rcsdiff(1)` — compares RCS revisions  
`sccsdiff(1)` — compares two versions of an SCCS file  
`sdiff(1)` — reports side-by-side differences between two files in a side-by-side format  
`ucbdiff3(1)` — reports the differences between three files  
`ucbdiff(1)` — reports differences between two files or directories

### **directories**

`dircmp(1)` — compares the contents of two directories  
`ln(1)` — makes links  
`ls(1)` — lists the contents of a directory  
`mkdir(1)` — creates a directory  
`mv(1)` — moves or renames files  
`sumdir(1)` — sums and counts the characters within the files of the given directories  
`cpset(1M)` — installs files in specified directories  
`dev_kill(1M)` — removes device files from a directory  
`getdirentries(2)` — gets directory entries  
`link(2)` — provides a link to a file  
`mkdir(2)` — makes a directory file  
`mknod(2)` — makes a directory, or a special or ordinary file  
`rmdir(2)` — remove a directory file  
`unlink(2)` — remove directory entry  
`directory(3)` — perform operations on directories  
`ftw(3C)` — walks a file tree  
`scandir(3)` — scans a directory

dir(4) — format of System V directories  
**directory, current**  
 pwd(1) — prints the name of the working directory  
 chdir(2) — changes the working directory  
 getcwd(3C) — gets the pathname of the current working directory  
 getwd(3) — gets the current working directory pathname  
**directory string functions**  
 basename(1) — get part of a pathname  
 realpath(3) — returns the real filename of a file  
**disassembler**  
 dis(1) — produces an assembly language listing for a specified file  
**disk accounting**  
 df(1) — reports the used and unused storage capacity for a file system  
 du(1) — summarizes disk usage  
 diskusg(1M) — generates disk accounting data by user ID  
**disk blocks**  
 df(1) — reports the used and unused storage capacity for a file system  
 du(1) — summarizes disk usage  
 badblk(1M) — sets or updates bad block information  
 bcopy(1M) — copies blocks interactively  
 altblk(4) — alternate block information for bad block handling  
 bzb(4) — Block Zero Block file format  
**disk drives**  
 eject(1) — ejects a diskette from the drive  
**disk partitions**  
 dd(1) — converts and copies a file  
 dp(1M) — performs disk partitioning  
 pname(1M) — associates named partitions with device files  
 getptabent(3) — get partition table file entry  
 bzb(4) — Block Zero Block file format  
 dpme(4) — format of disk partition map entries  
 ptab(4) — partition table file  
**disks, floppy**  
 cpio(1) — copies files to or from a cpio archive  
 eject(1) — ejects a diskette from the drive  
 pax(1) — copies files to or from an archive in an IEEE format  
 tar(1) — copies files to or from a tar archive  
 diskformat(1M) — formats a disk through a driver-dependent format  
     operation  
 finstall(1M) — installs A/UX software from specially prepared floppy  
     disks  
 cpio(4) — format of cpio archive  
 finstallrc(4) — finstall default configuration file  
 tar(4) — format of tar header

fd(7) — provides an interface to 3.5-inch disk drives

**disks, formatting**

diskformat(1M) — formats a disk through a driver-dependent format operation

**disks, general**

df(1) — reports the used and unused storage capacity for a file system

du(1) — summarizes disk usage

eject(1) — ejects a diskette from the drive

diskformat(1M) — formats a disk through a driver-dependent format operation

fsck(1M) — checks file-system consistency and interactively repairs the file system

fsync(2) — synchronize a file's in-core state with that on disk

disktab(4) — disk description file format

fstab(4) — parameter file format

gd(7) — provides a generic interface to disk devices

**display processing**

300(1) — filter text containing printer control sequences for a DASI terminal

4014(1) — filters text containing printer control sequences a page at a time

450(1) — filters text containing printer control sequences for the DASI terminal

col(1) — filters text containing printer control sequences for use at a display device

colcrt(1) — filters nroff output for terminal previewing

greek(1) — filters text for vintage display devices

tc(1) — interprets troff output for use at a vintage display device

tplot(1G) — interprets plotter instructions for use at a vintage display device

ul(1) — filters special underlining sequences imbedded in text for use at a display device

**dividing files**

csplit(1) — splits files into sections

split(1) — splits a file into a specified number of pieces

**documentation, online**

apropos(1) — locates commands by keyword

man(1) — displays the named manual page entries

whatis(1) — reports a brief description for the manual page entry specified

whereis(1) — reports the locations of the source, binary, and online help files for a specified command

man(5) — macros for formatting entries in this manual

## domains

`domainname(1)` — sets or displays the name of the Network Information Service (NIS) domain  
`named(1M)` — provides Internet domain name service  
`resolver(3N)` — provide resolver routines  
`HOSTNAME(4)` — host name and domain name database  
`resolv.conf(4)` — configuration file for resolver routines

## double-precision numbers

`aint(3F)` — Fortran integer part intrinsic function  
`dprod(3F)` — Fortran double precision product intrinsic function  
`strtod(3C)` — converts a string to a double-precision number

## drawing

`grap(1)` — invokes a `pic` preprocessor for drawing graphs  
`graph(1G)` — draws a graph  
`pic(1)` — preprocesses `troff` files that contain drawings

## drawings, generation of graphs and curves

`graph(1G)` — draws a graph  
`spline(1G)` — interpolates a smooth curve

## drawings, plotter, filtering for display purposes

`tplot(1G)` — interprets plotter instructions for use at a vintage display device

## drivers

`console(7)` — provides access to the console keyboard and screen  
`fd(7)` — provides an interface to 3.5-inch disk drives  
`gd(7)` — provides a generic interface to disk devices  
`intro(7)` — introduces device drivers and interfaces  
`mouse(7)` — provides a mouse input device driver  
`pty(7)` — provides a pseudo terminal driver  
`serial(7)` — provides the on-board serial ports  
`sxt(7)` — provides a pseudo-device driver  
`tc(7)` — tape device driver

## DTS 300 terminal

`300(1)` — filter text containing printer control sequences for a DASI terminal

## duration

`time(1)` — prints the elapsed time during the execution of a command  
`timex(1)` — reports the elapsed, user, and system time during the execution of a command

## editors

`TextEditor(1)` — lets you edit files interactively through mouse and menu operations  
`bfs(1)` — edits big files  
`ed(1)` — edit text  
`ex(1)` — edit text

nl(1) — processes a file through a line numbering filter  
 sed(1) — edits a stream of data  
 ssp(1) — produces single spaced output  
 vi(1) — invokes the screen-oriented (visual) display editor

**effective group ID**

getuid(2) — get real and effective user IDs and group IDs  
 setregid(2) — sets real and effective group ID

**effective user ID**

su(1) — substitutes user ID  
 getuid(2) — get real and effective user IDs and group IDs  
 setreuid(2) — set real and effective user ID  
 setsid(2P) — create session and set process group ID

**emulation, terminal**

CommandShell(1) — manages command-interpretation windows and moderates access to the A/UX console window  
 vt102(7) — provides protocols for VT102 terminals

**enablers**

enable(1) — enable or disable LP printers  
 mesg(1) — permits or denies the receipt of messages  
 accept(1M) — allows lp requests  
 acct(2) — enable or disable process accounting  
 phys(2) — allows a process to access physical addresses

**encryption**

crypt(1) — encodes and decodes passwords  
 makekey(1) — generates an encryption key  
 crypt(3C) — generate DES encryption

**environment**

env(1) — sets the environment for command execution  
 printenv(1) — displays the value of variables set in the current environment  
 getenv(3C) — return value for environment name  
 getenv(3F) — return Fortran environment variable  
 putenv(3C) — changes existing environmental variable values or adds new ones  
 profile(4) — setting up an environment at login time  
 environ(5) — user environment

**error functions**

erf(3M) — error function and complementary error function  
 matherr(3M) — provides an error-handling function

**error logging**

mkstr(1) — creates an error message file by massaging C source programs  
 errdemon(1M) — calls the error-logging daemon  
 errpt(1M) — processes a report of logged errors

errstop(1M) — terminates the error-logging daemon  
errfile(4) — error-log file format  
error(7) — interfaces between processes and error-record collection routines

#### errors, general

errdead(1M) — extracts error records from a crash dump  
exterr(1M) — turns on/off the reporting of extended errors  
intro(2) — introduces system calls and error numbers  
matherr(3M) — provides an error-handling function  
perror(3C) — produce system error messages

#### Ethernet

checkinstall(1) — checks the installation of boards  
etheraddr(1M) — displays the Ethernet address of each Ethernet card in your system  
ether(3N) — monitors Ethernet traffic  
ethers(3N) — provide Ethernet address mapping operations  
ethers(4) — Ethernet address to host name database or YP domain  
ae(5) — 3Com 10 Mb/s Ethernet interface  
arp(5P) — Address Resolution Protocol

#### Euclidean distance

hypot(3M) — provides the Euclidean distance function

#### evaluators

basename(1) — get part of a pathname  
expr(1) — evaluates arguments as an expression  
test(1) — evaluates conditions

#### execution, general

apply(1) — passes its arguments in batches to a command that is run once per every batch  
at(1) — run commands at a later time  
env(1) — sets the environment for command execution  
launch(1) — runs a Macintosh binary application in A/UX  
nice(1) — executes a command at low priority  
nohup(1) — runs a command so that it can continue to run even after your session has ended  
remsh(1N) — invokes to a shell on a remote system  
sleep(1) — suspends the system for a specified interval of time  
uux(1C) — runs a command on a remote system  
xargs(1) — builds arguments based on the standard input, passing them in batches to the specified command which is executed enough times to deplete all the arguments  
cron(1M) — runs the clock daemon  
rexecd(1M) — server for remote executions  
uuxqt(1M) — handles requests from remote systems to run commands  
exec(2) — execute a file

regcmp(3X) — compile and execute a regular expression

sleep(3C) — suspends execution for interval

usleep(3) — suspend execution for interval

#### **execution profile**

prof(1) — displays profile data

time(1) — prints the elapsed time during the execution of a command

timex(1) — reports the elapsed, user, and system time during the execution of a command

profil(2) — reports the execution time of an application

monitor(3C) — prepares an execution profile

#### **expanding and compressing files**

compact(1) — compress and uncompress files

compress(1) — compress files and directories as well as expand them; support concatenation, browsing, and file-comparing operations upon compressed files

crypt(1) — encodes and decodes passwords

makekey(1) — generates an encryption key

pack(1) — compress and expand files

#### **exponents**

exp(3F) — Fortran exponential intrinsic function

exp(3M) — provide exponential, logarithm, power, and square root functions

#### **expressions**

basename(1) — get part of a pathname

expr(1) — evaluates arguments as an expression

#### **expressions, regular**

grep(1) — search a file for a specific pattern

regcmp(1) — compiles regular expressions with a file

regcmp(3X) — compile and execute a regular expression

regexp(5) — regular expression compile and match routines

#### **extended character set**

greek(1) — filters text for vintage display devices

#### **factoring**

factor(1) — prints the prime factor of a given number

#### **false and true**

test(1) — evaluates conditions

true(1) — provides truth values

#### **fields**

awk(1) — scans a file for lines that match a specific pattern

colrm(1) — removes columns from a file

cut(1) — cuts out selected fields of each line of a file

join(1) — combines (joins) two relational files

paste(1) — merges lines of several files or subsequent lines of one file

sort(1) — sorts or merges files



qsort(3C) — performs a quicker sort

#### file control

touch(1) — updates access and modification times of a file

fcntl(2) — provides file control

fcntl(5) — file control options

#### file creation masks

umask(2) — set and get file creation mask

#### file formats used by A/UX

intro(4) — introduction to file formats

#### file handles

nfs\_getfh(2) — gets a file handle

#### file handling

chmod(1) — changes the permissions of a file

chown(1) — change the owner or group of a file

cp(1) — copies files

cpio(1) — copies files to or from a cpio archive

csplit(1) — splits files into sections

dd(1) — converts and copies a file

fcvt(1) — converts a file in one storage format to a different storage format

file(1) — determines the type of a file

find(1) — finds files

head(1) — displays the first few lines of a file

ln(1) — makes links

lp(1) — spools print requests to printers

lpq(1) — queries the print spooler for progress information

lpr(1) — spools print requests to printers

lprm(1) — removes jobs from the line printer spooling queue for a Berkeley file system (4.2)

ls(1) — lists the contents of a directory

mkdir(1) — creates a directory

more(1) — show the contents of a file in display-size chunks

mv(1) — moves or renames files

pax(1) — copies files to or from an archive in an IEEE format

pg(1) — shows the contents of a file in display-size chunks

rcp(1C) — copies files between two systems

rdist(1) — distributes remote files

rm(1) — remove files or directories

setfile(1) — sets attributes for Macintosh files, such as file type and creator

split(1) — splits a file into a specified number of pieces

sum(1) — calculates a checksum

tail(1) — displays the last part of a file

tar(1) — copies files to or from a tar archive

touch(1) — updates access and modification times of a file  
 tp(1) — copies files to or from a tp archive  
 updater(1) — updates files between two machines  
 uucsend(1C) — sends a file to a remote host  
 uuto(1C) — provide an easy interface to the uucp command, using the  
     public directories  
 version(1) — reports version number of files  
 clr(1M) — clears inodes  
 ff(1M) — lists file names and statistics for a System V file system  
 fuser(1M) — identifies processes using a file or file structure  
 chown(2) — changes the owner and group of a file  
 close(2) — closes a file descriptor  
 creat(2) — creates a new file or rewrites an existing one  
 exec(2) — execute a file  
 link(2) — provides a link to a file  
 lseek(2) — move read/write file pointer  
 nfs\_get fh(2) — gets a file handle  
 open(2) — opens a file for reading or writing  
 read(2) — reads from a file  
 symlink(2) — make symbolic link to a file  
 truncate(2) — truncate a file to a specified length  
 write(2) — write on a file  
 fopen(3S) — open a stream  
 fread(3S) — produce binary input/output  
 fseek(3S) — reposition a file pointer in a stream  
 tmpfile(3S) — creates a temporary file  
 fspec(4) — syntax for format lines for newform

#### **file merging**

cat(1) — catenates and displays the contents of files  
 join(1) — combines (joins) two relational files  
 merge(1) — merges three files into one  
 paste(1) — merges lines of several files or subsequent lines of one file  
 soelim(1) — eliminates the source commands from nroff input  
 sort(1) — sorts or merges files  
 tsort(1) — sorts lines in a file topologically  
 acctmerg(1M) — merges or adds accounting files

#### **file moving**

mv(1) — moves or renames files

#### **filenames**

find(1) — finds files  
 mv(1) — moves or renames files  
 rename(2) — change the name of a file  
 ctermid(3S) — generate filename for terminal  
 mktemp(3C) — makes a unique filename

realpath(3) — returns the real filename of a file  
tmpnam(3S) — create a name for a temporary file  
fstypes(4) — name-mapping information for file systems

#### **file permissions**

chmod(1) — changes the permissions of a file  
chown(1) — change the owner or group of a file  
find(1) — finds files  
ls(1) — lists the contents of a directory  
chmod(2) — change mode of file  
umask(2) — set and get file creation mask

#### **file pointers**

lseek(2) — move read/write file pointer  
fseek(3S) — reposition a file pointer in a stream

#### **file reading**

cat(1) — catenates and displays the contents of files  
head(1) — displays the first few lines of a file  
line(1) — reads one line from the standard input  
more(1) — show the contents of a file in display-size chunks  
pg(1) — shows the contents of a file in display-size chunks  
soelim(1) — eliminates the source commands from nroff input  
tail(1) — displays the last part of a file  
read(2) — reads from a file  
fread(3S) — produce binary input/output  
getc(3S) — get character or word from a stream

#### **file regions**

locking(2) — provides exclusive file regions for reading or writing  
lockf(3C) — records locking on files

#### **file scanning**

cat(1) — catenates and displays the contents of files  
head(1) — displays the first few lines of a file  
line(1) — reads one line from the standard input  
more(1) — show the contents of a file in display-size chunks  
pg(1) — shows the contents of a file in display-size chunks  
soelim(1) — eliminates the source commands from nroff input  
tail(1) — displays the last part of a file  
read(2) — reads from a file  
fread(3S) — produce binary input/output  
getc(3S) — get character or word from a stream

#### **file status**

chmod(1) — changes the permissions of a file  
chown(1) — change the owner or group of a file  
file(1) — determines the type of a file  
find(1) — finds files  
ls(1) — lists the contents of a directory

`setfile(1)` — sets attributes for Macintosh files, such as file type and creator

`sum(1)` — calculates a checksum

`touch(1)` — updates access and modification times of a file

`version(1)` — reports version number of files

`ncheck(1M)` — locates the filename associated with an i-number

`access(2)` — determine accessibility of a file

`chmod(2)` — change mode of file

`chown(2)` — changes the owner and group of a file

`fsync(2)` — synchronize a file's in-core state with that on disk

`stat(2)` — get file status

`utime(2)` — set file access and modification times

`stat(5)` — data returned by `stat` system call

#### **file system repair**

`clri(1M)` — clears inodes

`fsck(1M)` — checks file-system consistency and interactively repairs the file system

`fsdb(1M)` — debugs the file system

`ncheck(1M)` — locates the filename associated with an i-number

`esch(8)` — validates and repairs file systems from the A/UX Startup shell

#### **file systems, Berkeley**

`newfs(1M)` — makes a Berkeley 4.2 (UFS) file system

`tunefs(1M)` — tunes a Berkeley 4.2 (UFS) file system

`ufs(4)` — UFS file-system format

#### **file systems, block zero information**

`bzb(4)` — Block Zero Block file format

#### **file systems, copying to backup media**

`bcopy(1M)` — copies blocks interactively

`dcopy(1M)` — copies System V File System-style file systems for optimal access time

`dump.bsd(1M)` — create a `dump.bsd` archive by making copies of files from a given file system

`escher(1M)` — helps you with autorecovery administration

`eu(1M)` — updates autorecovery files

`eupdate(1M)` — updates important files for autorecovery purposes

`finc(1M)` — generates a fast incremental backup for System V file systems

`frec(1M)` — recovers files from a backup tape

`restore(1M)` — retrieve files from within a `dump.bsd` archive into an existing file system

`volcopy(1M)` — copy file systems with label checking

### file systems, display status of

- df(1) — reports the used and unused storage capacity for a file system
- du(1) — summarizes disk usage

### file systems, general

- fstyp(1) — reports the file-system type
- sync(1) — updates the superblock
- automount(1M) — mounts Network File System (NFS) when needed
- clri(1M) — clears inodes
- devnm(1M) — displays the current device name
- exportfs(1M) — exports and unexports directories to Network File System (NFS) clients
- ff(1M) — lists file names and statistics for a System V file system
- fsck(1M) — checks file-system consistency and interactively repairs the file system
- fsdb(1M) — debugs the file system
- fsentry(1M) — creates an entry in the file-system table
- fsirand(1M) — installs random inode generation numbers
- fsstat(1M) — reports the state of a file system
- fuser(1M) — identifies processes using a file or file structure
- mkfs1b(1M) — constructs a file system with 512-byte blocks
- mkfs(1M) — constructs a System V file system
- mklost+found(1M) — makes a directory named `lost+found` to be used by `fsck`
- mount(1M) — mount and unmount file systems
- mountd(1M) — invokes the Network File System (NFS) mount-request server
- ncheck(1M) — locates the filename associated with an i-number
- newfs(1M) — makes a Berkeley 4.2 (UFS) file system
- tunefs(1M) — tunes a Berkeley 4.2 (UFS) file system
- volcopy(1M) — copy file systems with label checking
- fsmount(2) — mount a network file system (NFS)
- statfs(2) — gets file-system statistics
- umount(2) — unmount a file system
- unmount(2) — remove a file system
- ustat(2) — gets file system statistics
- exportent(3) — get exported file-system information
- fstyp(3) — determines the file-system type
- fstypent(3P) — gets a file-system-type entry
- ftw(3C) — walks a file tree
- getmntent(3) — get file system descriptor file entry
- mount(3) — mounts a file system
- mount(3N) — keeps track of remotely mounted file systems
- umount(3) — unmounts a file system
- dump.bsd(4) — format of a file-system dump

exports(4) — directories to export to Network File System (NFS) clients  
 fs(4) — file systems  
 fstab(4) — parameter file format  
 fstypes(4) — name-mapping information for file systems  
 mtab(4) — mounted file system table  
 rmtab(4) — remotely mounted file system table  
 svfs(4) — System V system volume format  
 ufs(4) — UFS file-system format  
 esch(8) — validates and repairs file systems from the A/UX Startup shell

**file systems, maintenance**

fstyp(1) — reports the file-system type  
 sync(1) — updates the superblock  
 clrri(1M) — clears inodes  
 devnm(1M) — displays the current device name  
 ff(1M) — lists file names and statistics for a System V file system  
 fsck(1M) — checks file-system consistency and interactively repairs the  
 file system  
 fsdb(1M) — debugs the file system  
 fsentry(1M) — creates an entry in the file-system table  
 fsirand(1M) — installs random inode generation numbers  
 fsstat(1M) — reports the state of a file system  
 fuser(1M) — identifies processes using a file or file structure  
 mkfslb(1M) — constructs a file system with 512-byte blocks  
 mkfs(1M) — constructs a System V file system  
 mklost+found(1M) — makes a directory named `lost+found` to be  
 used by `fsck`  
 mount(1M) — mount and unmount file systems  
 ncheck(1M) — locates the filename associated with an i-number  
 newfs(1M) — makes a Berkeley 4.2 (UFS) file system  
 tuneufs(1M) — tunes a Berkeley 4.2 (UFS) file system

**file systems, NFS, maintenance of**

domainname(1) — sets or displays the name of the Network Information  
 Service (NIS) domain  
 automount(1M) — mounts Network File System (NFS) when needed  
 exportfs(1M) — exports and unexports directories to Network File  
 System (NFS) clients  
 lockd(1M) — handle local and remote lock requests  
 mountd(1M) — invokes the Network File System (NFS) mount-request  
 server  
 nfsd(1M) — invoke the NFS daemons  
 nfsstat(1M) — displays Network File System (NFS) statistics  
 rpcinfo(1M) — reports RPC information  
 showmount(1M) — shows all remote mounts  
 spray(1M) — sprays packets

sprayd(1M) — returns information for the `spray` command  
statd(1M) — provide crash and recovery monitoring for network locking services

#### **file systems, System V**

mkfs(1M) — constructs a System V file system  
dir(4) — format of System V directories  
inode(4) — format of a System V inode  
svfs(4) — System V system volume format

#### **file systems, unmounting**

umount(2) — unmount a file system  
unmount(2) — remove a file system  
umount(3) — unmounts a file system

#### **file transfers**

cpio(1) — copies files to or from a `cpio` archive  
cu(1C) — establishes an interactive connection with another system  
ftp(1N) — transfers files by using the DARPA Internet File Transfer Protocol (FTP)  
kermit(1C) — invokes the Kermit file-transfer program  
pax(1) — copies files to or from an archive in an IEEE format  
rcp(1C) — copies files between two systems  
remsh(1N) — invokes to a shell on a remote system  
tar(1) — copies files to or from a `tar` archive  
tftp(1C) — transfers files via the Trivial File Transfer Protocol (TFTP)  
tip(1C) — establishes a connection to a remote system  
updater(1) — updates files between two machines  
uucp(1C) — copies files from one system to another system  
uuencode(1C) — encode and decode a binary file  
ftpd(1M) — provide Internet File Transfer Protocol (FTP) service  
tftpd(1M) — responds to requests to use the DARPA Trivial File Transfer Protocol  
uucico(1M) — transfers files as specified by `uucp` work files

#### **file types**

file(1) — determines the type of a file  
find(1) — finds files  
magic(4) — magic number file for `file` command

#### **file writing**

write(2) — write on a file

#### **files, archive**

ar(1) — maintains a library of files in an archive  
cpio(1) — copies files to or from a `cpio` archive  
lorder(1) — finds the ordering relation for an object library  
pax(1) — copies files to or from an archive in an IEEE format  
tar(1) — copies files to or from a `tar` archive  
ldahread(3X) — reads the archive header of a member of an archive file

- ar(4) — common archive file format
- cpio(4) — format of cpio archive
- tar(4) — format of tar header
- files, big**
  - bdiff(1) — compares the difference between two large files that are too big for diff to handle
  - bfs(1) — edits big files
- files, browsing**
  - head(1) — displays the first few lines of a file
  - more(1) — show the contents of a file in display-size chunks
  - pg(1) — shows the contents of a file in display-size chunks
  - tail(1) — displays the last part of a file
- files, comparing**
  - bdiff(1) — compares the difference between two large files that are too big for diff to handle
  - cmp(1) — compares two files
  - comm(1) — selects or rejects lines common to two sorted files
  - diff3(1) — compares three versions of a file
  - diff(1) — compares two files or directories for any differences
  - dircmp(1) — compares the contents of two directories
  - merge(1) — merges three files into one
  - rcsdiff(1) — compares RCS revisions
  - sccsdiff(1) — compares two versions of an SCCS file
  - sdiff(1) — reports side-by-side differences between two files in a side-by-side format
  - sumdir(1) — sums and counts the characters within the files of the given directories
  - ucbdiff3(1) — reports the differences between three files
  - ucbdiff(1) — reports differences between two files or directories
  - uniq(1) — reports repeated lines in a file
- files, compressing and expanding**
  - compact(1) — compress and uncompress files
  - compress(1) — compress files and directories as well as expand them; support concatenation, browsing, and file-comparing operations upon compressed files
  - crypt(1) — encodes and decodes passwords
  - makekey(1) — generates an encryption key
  - pack(1) — compress and expand files
- files, copying**
  - atprint(1) — transfers data to a printer by using AppleTalk protocols
  - cp(1) — copies files
  - cpio(1) — copies files to or from a cpio archive
  - csplit(1) — splits files into sections
  - dd(1) — converts and copies a file



**fcvnt(1)** — converts a file in one storage format to a different storage format  
**ln(1)** — makes links  
**pax(1)** — copies files to or from an archive in an IEEE format  
**rcp(1C)** — copies files between two systems  
**split(1)** — splits a file into a specified number of pieces  
**tar(1)** — copies files to or from a tar archive  
**tp(1)** — copies files to or from a tp archive  
**uucp(1C)** — copies files from one system to another system  
**uuto(1C)** — provide an easy interface to the uucp command, using the public directories  
**bcopy(1M)** — copies blocks interactively  
**dcopy(1M)** — copies System V File System-style file systems for optimal access time  
**dump.bsd(1M)** — create a dump.bsd archive by making copies of files from a given file system  
**restore(1M)** — retrieve files from within a dump.bsd archive into an existing file system  
**volcopy(1M)** — copy file systems with label checking  
**blt(3C)** — block transfer data  
**cpio(4)** — format of cpio archive  
**tar(4)** — format of tar header

**files, device description**

**printcap(4)** — printer-capability database  
**termcap(4)** — terminal capability database  
**terminfo(4)** — terminal capability database

**files, displaying status of**

**file(1)** — determines the type of a file  
**ls(1)** — lists the contents of a directory  
**sum(1)** — calculates a checksum  
**version(1)** — reports version number of files

**files, dividing**

**csplit(1)** — splits files into sections  
**split(1)** — splits a file into a specified number of pieces

**files, FIFO**

**mkfifo(3P)** — makes a FIFO special file

**files, finding**

**find(1)** — finds files

**files, manipulating**

**cp(1)** — copies files  
**cpio(1)** — copies files to or from a cpio archive  
**csplit(1)** — splits files into sections  
**dd(1)** — converts and copies a file  
**fcvnt(1)** — converts a file in one storage format to a different storage

### format

`ln(1)` — makes links  
`mkdir(1)` — creates a directory  
`mv(1)` — moves or renames files  
`pax(1)` — copies files to or from an archive in an IEEE format  
`rcp(1C)` — copies files between two systems  
`rm(1)` — remove files or directories  
`split(1)` — splits a file into a specified number of pieces  
`tar(1)` — copies files to or from a tar archive  
`tp(1)` — copies files to or from a tp archive

### files, merging

`cat(1)` — catenates and displays the contents of files  
`join(1)` — combines (joins) two relational files  
`merge(1)` — merges three files into one  
`paste(1)` — merges lines of several files or subsequent lines of one file  
`soelim(1)` — eliminates the source commands from `nroff` input  
`sort(1)` — sorts or merges files  
`tsort(1)` — sorts lines in a file topologically  
`acctmerg(1M)` — merges or adds accounting files

### files, Name Information Server

`makedbm(1M)` — generates a Network Information Service (NIS) `dbm` file

### files, printing

`cancel(1)` — cancels print requests spooled through the `lp` command  
`lp(1)` — spools print requests to printers  
`lpq(1)` — queries the print spooler for progress information  
`lpr(1)` — spools print requests to printers  
`lprm(1)` — removes jobs from the line printer spooling queue for a Berkeley file system (4.2)

### files, RCS

`ci(1)` — checks in RCS revisions  
`co(1)` — checks out RCS revisions  
`ident(1)` — displays RCS keywords and their values  
`merge(1)` — merges three files into one  
`rcs(1)` — creates new RCS files or changes attributes of existing RCS files  
`rcsdiff(1)` — compares RCS revisions  
`rcsintro(1)` — introduces RCS commands  
`rcsmerge(1)` — merges two versions of an RCS file  
`rlog(1)` — displays log messages and other information about RCS files  
`ucbdiff3(1)` — reports the differences between three files  
`ucbdiff(1)` — reports differences between two files or directories  
`sccstorcs(1M)` — builds an RCS file from an SCCS file  
`rcsfile(4)` — format of an RCS file

## files, SCCS

`admin(1)` — creates and administers SCCS files  
`cdc(1)` — changes the delta commentary of an SCCS delta  
`comb(1)` — combines SCCS deltas  
`delta(1)` — makes a delta (change) to an SCCS file  
`get(1)` — gets a version of an SCCS file  
`help(1)` — provides help information about SCCS commands and messages  
`prs(1)` — displays information about an SCCS file  
`rmdel(1)` — removes a delta from an SCCS file  
`sact(1)` — displays who has checked a Source Code Control System (SCCS) file out for editing  
`sccs(1)` — performs SCCS subsystem commands  
`sccsdiff(1)` — compares two versions of an SCCS file  
`unget(1)` — undoes a previous get of an SCCS file  
`val(1)` — validate SCCS file  
`what(1)` — reports identification information for a file  
`sccstorcs(1M)` — builds an RCS file from an SCCS file  
`sccsfile(4)` — format of an SCCS file

## files, searching for

`find(1)` — finds files

## finding files

`find(1)` — finds files

## flag options

`getopt(1)` — parses command options  
`getopt(3C)` — get option letter from argument vector

## floating-point numbers

`atof(3C)` — converts an ASCII string to floating-point number  
`ecvt(3C)` — convert floating-point number to string  
`frexp(3C)` — manipulate parts of floating-point numbers

## floor numbers

`floor(3M)` — floor, ceiling, remainder, absolute value functions

## floppy disks

`cpio(1)` — copies files to or from a `cpio` archive  
`eject(1)` — ejects a diskette from the drive  
`pax(1)` — copies files to or from an archive in an IEEE format  
`tar(1)` — copies files to or from a `tar` archive  
`diskformat(1M)` — formats a disk through a driver-dependent format operation  
`finstall(1M)` — installs A/UX software from specially prepared floppy disks  
`cpio(4)` — format of `cpio` archive  
`finstallrc(4)` — `finstall` default configuration file  
`tar(4)` — format of `tar` header

fd(7) — provides an interface to 3.5-inch disk drives

**flowgraphs**

cflow(1) — generates a C flowgraph

**font files, troff**

makedev(1) — prepares troff description files

afm(4) — Adobe POSTSCRIPT font metrics file format

font(5) — description files for device-independent troff

**footnotes**

mm(1) — formats documents that contain nroff and mm macro formatting requests

refer(1) — finds and inserts literature references in documents

me(5) — macros for formatting papers

mm(5) — macro package for formatting documents

ms(5) — text formatting macros

**format checkers**

checkmm(1) — check documents formatted with the mm macros

checknr(1) — checks nroff/troff files

lint(1) — invokes a C program checker

**format macros**

checkmm(1) — check documents formatted with the mm macros

m4(1) — processes macros for C and other languages

macref(1) — produces a cross-reference listing of macro files

mm(1) — formats documents that contain nroff and mm macro formatting requests

man(5) — macros for formatting entries in this manual

me(5) — macros for formatting papers

mm(5) — macro package for formatting documents

mptx(5) — the macro package for formatting a permuted index

ms(5) — text formatting macros

mv(5) — a troff macro package for typesetting viewgraphs and slides

**formatters, disk**

diskformat(1M) — formats a disk through a driver-dependent format operation

**formatters, text**

daps(1) — invokes the Autologic APS-5 phototypesetter troff post-processor

enscript(1) — converts text files to format for printing

eqn(1) — format mathematical text for troff

fmt(1) — invokes a simple text formatter

fold(1) — folds long lines for finite-width output device

mm(1) — formats documents that contain nroff and mm macro formatting requests

mmt(1) — typeset documents that contain troff and mm or mv macro-formatting requests

mvt(1) — typeset documents that contain troff and mm or mv macro-formatting requests  
 neqn(1) — formats mathematical text for nroff  
 newform(1) — changes the format of a text file  
 nroff(1) — text formatter  
 otf(1) — formats text for a specific phototypesetter  
 pr(1) — formats text for a print device  
 psdit(1) — converts troff intermediate format to POSTSCRIPT format  
 psroff(1) — formats a file through troff so it can be printed on a POSTSCRIPT printer  
 roffbib(1) — prints out all records in a bibliographic database  
 tbl(1) — table formatter for nroff or troff  
 troff(1) — formats and typesets files

### Fortran facilities

asa(1) — interprets ASA carriage control characters  
 efl(1) — invokes the Extended Fortran Language  
 f77(1) — invokes the Fortran 77 compiler  
 fpr(1) — filters the output of Fortran programs for line printing  
 fsplit(1) — splits f77 or efl files  
 abort(3F) — terminates a Fortran program  
 abs(3F) — Fortran absolute value  
 acos(3F) — Fortran arccosine intrinsic function  
 aimag(3F) — Fortran imaginary part of complex argument  
 aint(3F) — Fortran integer part intrinsic function  
 asin(3F) — Fortran arcsine intrinsic function  
 atan2(3F) — Fortran arctangent intrinsic function  
 atan(3F) — Fortran arctangent intrinsic function  
 bool(3F) — Fortran bitwise boolean functions  
 conjg(3F) — Fortran complex conjugate intrinsic function  
 cos(3F) — Fortran cosine intrinsic function  
 cosh(3F) — Fortran hyperbolic cosine intrinsic function  
 dim(3F) — Fortran positive difference intrinsic functions  
 dprod(3F) — Fortran double precision product intrinsic function  
 exp(3F) — Fortran exponential intrinsic function  
 ftype(3F) — explicit Fortran type conversion  
 getarg(3F) — return Fortran command-line argument  
 getenv(3F) — return Fortran environment variable  
 iargc(3F) — return command line arguments  
 index(3F) — return location of Fortran substring  
 len(3F) — return length of Fortran string  
 lge(3F) — string comparison intrinsic functions  
 log10(3F) — Fortran common logarithm intrinsic function  
 log(3F) — Fortran natural logarithm intrinsic function  
 max(3F) — provides Fortran maximum-value functions

mclock(3F) — returns Fortran time accounting  
min(3F) — provide Fortran minimum-value functions  
mod(3F) — provide Fortran remaindering intrinsic functions  
rand(3F) — provide a Fortran uniform random-number generator  
round(3F) — provide Fortran nearest integer functions  
sign(3F) — returns Fortran transfer-of-sign intrinsic functions  
signal(3F) — specifies Fortran action on receipt of a system signal  
sin(3F) — provide Fortran sine intrinsic functions  
sinh(3F) — provide Fortran hyperbolic sine intrinsic function  
sqrt(3F) — provide Fortran square root intrinsic functions  
system(3F) — issues a shell command from Fortran  
tan(3F) — Fortran tangent intrinsic function  
tanh(3F) — Fortran hyperbolic tangent intrinsic function

#### **Fortran programming**

asa(1) — interprets ASA carriage control characters  
efl(1) — invokes the Extended Fortran Language  
f77(1) — invokes the Fortran 77 compiler  
fpr(1) — filters the output of Fortran programs for line printing  
fsplit(1) — splits f77 or efl files

#### **full-duplex**

shutdown(2N) — shut down part of a full-duplex connection  
termio(7) — provides a general terminal interface  
termios(7P) — provides a A/UX® POSIX general terminal interface

#### **games**

aliens(6) — plays the game of Space Invaders (A/UX version)  
arithmetic(6) — provides arithmetic problems  
autorobots(6) — plays the game of autorobots  
back(6) — plays the game of backgammon  
bcd(6) — simulates a punched card corresponding to a text argument  
bj(6) — plays the game of black jack  
chase(6) — plays the game of chase  
craps(6) — plays the game of craps  
cribbage(6) — plays the game of cribbage  
fish(6) — plays the game of Go Fish''  
fortune(6) — plays the game of fortune telling  
hangman(6) — plays the game of hangman  
intro(6) — introduction to games  
life(6) — plays the game of life  
mastermind(6) — plays the game of Mastermind  
maze(6) — generates a maze  
moo(6) — plays the game of moo  
number(6) — converts Arabic numerals to English  
quiz(6) — gives associative knowledge tests on various subjects  
rain(6) — animates raindrops

- robots(6) — plays the game of robots
- trek(6) — plays the game of trek
- ttt(6) — play the game of tic-tac-toe
- twinkle(6) — plays the game of twinkle, twinkle little stars
- worm(6) — plays the game of growing worm
- worms(6) — plays the game of worms
- wump(6) — plays the game of hunt-the-wumpus

**gamma function**

- gamma(3M) — logs a gamma function

**geometry**

- hypot(3M) — provides the Euclidean distance function

**go fish**

- fish(6) — plays the game of Go Fish''

**goto**

- setjmp(3C) — provide non-local goto
- sigsetjmp(3P) — provide non-local jumps

**graphics**

- graph(1G) — draws a graph
- pic(1) — preprocesses troff files that contain drawings
- spline(1G) — interpolates a smooth curve
- tplot(1G) — interprets plotter instructions for use at a vintage display device
- plot(3X) — provide graphics interface subroutines
- plot(4) — graphics interface

**graphs**

- grap(1) — invokes a pic preprocessor for drawing graphs
- graph(1G) — draws a graph

**group access lists**

- getgroups(2) — gets group access list
- setgroups(2) — sets group access list
- initgroups(3) — initializes group access list

**group IDs**

- id(1) — displays user and group IDs and names
- setuid(2) — set user and group ID
- group(4) — group file format
- passwd(4) — password file

**groups**

- chown(1) — change the owner or group of a file
- groups(1) — displays group memberships
- id(1) — displays user and group IDs and names
- newgrp(1) — logs you into a new group
- pwck(1M) — check the password/group files
- chown(2) — changes the owner and group of a file
- getgroups(2) — gets group access list

getuid(2) — get real and effective user IDs and group IDs  
 setgroups(2) — sets group access list  
 setregid(2) — sets real and effective group ID  
 setuid(2) — set user and group ID  
 getgrent(3C) — obtain group file entry from a group file  
 initgroups(3) — initializes group access list  
 group(4) — group file format

**GSI 300 terminal**

300(1) — filter text containing printer control sequences for a DASI terminal

**half-duplex**

shutdown(2N) — shut down part of a full-duplex connection  
 termio(7) — provides a general terminal interface  
 termios(7P) — provides a A/UX® POSIX general terminal interface

**halting execution**

kill(1) — terminates a process  
 killall(1M) — kills all active processes  
 exit(2) — terminate process  
 kill(2) — sends a signal to a process or a group of processes  
 reboot(2) — reboot system or halt processor

**handle, file**

nfs\_getfh(2) — gets a file handle

**hangman**

hangman(6) — plays the game of hangman

**hash tables**

hsearch(3C) — manage hash search tables

**help, command options**

cmdo(1) — builds command lines interactively

**help, online**

apropos(1) — locates commands by keyword  
 man(1) — displays the named manual page entries  
 whatis(1) — reports a brief description for the manual page entry specified  
 whereis(1) — reports the locations of the source, binary, and online help files for a specified command  
 which(1) — reports the directory path to a file by interpreting PATH and alias settings

**host names**

HOSTNAME(4) — host name and domain name database  
 ethers(4) — Ethernet address to host name database or YP domain  
 hosts.equiv(4) — files containing a list of trusted hosts  
 hosts(4) — host name database



## hosts

hostid(1N) — sets or displays the identifier of the current host system  
hostname(1N) — sets or displays the name of the current host system  
uname(1) — displays identification information about the current system  
uname(2) — get name of current system  
byteorder(3N) — convert values between host and network byte order  
gethostbyaddr(3N) — get network host entry  
hosts.equiv(4) — files containing a list of trusted hosts  
hosts(4) — host name database  
remote(4) — remote host description file  
rhosts(4N) — trusted hosts file format  
slip.hosts(4) — maps login names to Compressed Serial Line/Internet  
Protocol (CSL/IP) client host names

## HUGE (constant)

math(5) — math functions and constants

## hyperbolic functions

cosh(3F) — Fortran hyperbolic cosine intrinsic function  
sinh(3F) — provide Fortran hyperbolic sine intrinsic function  
sinh(3M) — provide hyperbolic functions  
tanh(3F) — Fortran hyperbolic tangent intrinsic function

## hyphenation

hyphen(1) — finds hyphenated words

## I/O management

query(1) — queries the user for input  
tee(1) — transcribes data  
ioctl(2) — requests low-level, input/output operations for specific  
devices  
select(2N) — synchronous I/O multiplexing  
cfgetospeed(3P) — get or set the value of the output and input baud  
rate  
fread(3S) — produce binary input/output  
fseek(3S) — reposition a file pointer in a stream  
printf(3S) — format and output string and numeric data  
scanf(3S) — convert formatted input  
streams(7) — provides an interface for character I/O

## ICMP

icmp(5P) — Internet Control Message Protocol

## IDs

id(1) — displays user and group IDs and names  
setuid(2) — set user and group ID  
auxstartuprc(4) — authorization file that helps password-protect and  
otherwise secure A/UX Startup  
group(4) — group file format  
passwd(4) — password file

## ImageWriter

iw2(1) — prepares data to be printed on the Apple ImageWriter II printer

## indexing

indxbib(1) — builds an inverted index for a bibliography

ndx(1) — creates a subject-page index for a document

ptx(1) — generates a permuted index

## initialization

tset(1) — set or reset the terminal to a sensible state

brc(1M) — execute system initialization shell scripts

init(1M) — spawn general processes

inittab(4) — script for the init process

## inittab file

init(1M) — spawn general processes

tty\_add(1M) — modify the /etc/inittab file in terms of enabling serial ports for use as login terminals

inittab(4) — script for the init process

## inodes

clri(1M) — clears inodes

fsck(1M) — checks file-system consistency and interactively repairs the file system

fsirand(1M) — installs random inode generation numbers

mkfs(1M) — constructs a System V file system

ncheck(1M) — locates the filename associated with an i-number

newfs(1M) — makes a Berkeley 4.2 (UFS) file system

inode(4) — format of a System V inode

## Input/Output management

query(1) — queries the user for input

tee(1) — transcribes data

ioctl(2) — requests low-level, input/output operations for specific devices

select(2N) — synchronous I/O multiplexing

cfgetospeed(3P) — get or set the value of the output and input baud rate

fread(3S) — produce binary input/output

fseek(3S) — reposition a file pointer in a stream

printf(3S) — format and output string and numeric data

scanf(3S) — convert formatted input

soundinput(7) — provides interface conventions for the sound input driver

streams(7) — provides an interface for character I/O

vt102(7) — provides protocols for VT102 terminals

## installers

`cpset(1M)` — installs files in specified directories  
`finstall(1M)` — installs A/UX software from specially prepared floppy disks  
`fsirand(1M)` — installs random inode generation numbers  
`install(1M)` — places files in specified directories  
`mklost+found(1M)` — makes a directory named `lost+found` to be used by `fsck`  
`ypinit(1M)` — initializes Network Information Service (NIS) maps for master and slave servers  
`finstallrc(4)` — `finstall` default configuration file

## integers

`bc(1)` — processes an arbitrary-precision arithmetic language  
`dc(1)` — desk calculator  
`expr(1)` — evaluates arguments as an expression  
`factor(1)` — prints the prime factor of a given number  
`abs(3C)` — return integer absolute value  
`abs(3F)` — Fortran absolute value  
`aint(3F)` — Fortran integer part intrinsic function  
`drand48(3C)` — generate uniformly distributed pseudo-random numbers  
`rand(3C)` — call a simple random-number generator  
`rand(3F)` — provide a Fortran uniform random-number generator  
`round(3F)` — provide Fortran nearest integer functions  
`strtol(3C)` — convert strings to integer

## interfaces

`telnet(1C)` — communicates with another host via the TELNET protocol  
`appletalk(1M)` — enables you to configure and display AppleTalk network interfaces  
`ifconfig(1M)` — manages network interfaces  
`atp(3N)` — provide a AppleTalk Transaction Protocol (ATP) interface  
`ddp(3N)` — provide an AppleTalk Datagram Delivery Protocol (DDP) interface  
`lap(3N)` — AppleTalk Link Access Protocol (LLAP/ELAP) interface  
`nbp(3N)` — perform AppleTalk Name Binding Protocol (NBP) interface operations  
`pap(3N)` — provide AppleTalk Printer Access Protocol (PAP) interface  
`plot(3X)` — provide graphics interface subroutines  
`set42sig(3)` — sets the Berkeley Software Distribution (BSD) 4.2 signal interface  
`ypclnt(3N)` — provide a Network Information Service (NIS) client interface  
`zip(3N)` — provide a AppleTalk Zone Information Protocol (ZIP) interface

plot(4) — graphics interface  
 slip.config(4) — establishes the number of available Compressed  
     Serial Line/Internet Protocol (CSL/IP) connections  
 ae(5) — 3Com 10 Mb/s Ethernet interface  
 lo(5) — software loopback network interface  
 appletalk(7) — interfaces with the AppleTalk protocols  
 error(7) — interfaces between processes and error-record collection  
     routines  
 gd(7) — provides a generic interface to disk devices  
 intro(7) — introduces device drivers and interfaces  
 mem(7) — provide an interface for access to core memory  
 mtio(7) — provides an interface library for magnetic tape devices  
 nvram(7) — provides an interface to nonvolatile memory  
 streams(7) — provides an interface for character I/O  
 termio(7) — provides a general terminal interface  
 termios(7P) — provides a A/UX® POSIX general terminal interface  
 tty(7) — controls the terminal interface

**Internet Control Message Protocol**

    icmp(5P) — Internet Control Message Protocol

**Internet, general**

    ftp(1N) — transfers files by using the DARPA Internet File Transfer  
     Protocol (FTP)  
 nslookup(1) — interactively queries name servers  
 rmail(1) — handles remote mail received via UUCP  
 tftp(1C) — transfers files via the Trivial File Transfer Protocol (TFTP)  
 ftpd(1M) — provide Internet File Transfer Protocol (FTP) service  
 inetd(1M) — starts Internet servers when needed  
 named(1M) — provides Internet domain name service  
 portmap(1M) — converts RPC program numbers into DARPA protocol  
     port numbers  
 sendmail(1M) — sends mail  
 stdhosts(1M) — converts Internet addresses to standard form  
 telnetd(1M) — supports the DARPA standard TELNET protocol  
 tftpd(1M) — responds to requests to use the DARPA Trivial File  
     Transfer Protocol  
 inet(3N) — provide Internet address manipulation routines  
 resolver(3N) — provide resolver routines  
 networks(4N) — network name database  
 protocols(4N) — protocol name database  
 resolv.conf(4) — configuration file for resolver routines  
 servers(4) — Internet server database  
 services(4N) — service name database  
 arp(5P) — Address Resolution Protocol  
 icmp(5P) — Internet Control Message Protocol

inet(5P) — Internet protocol family  
ip(5P) — Internet Protocol  
tcp(5P) — Internet Transmission Control Protocol  
udp(5P) — Internet User Datagram Protocol

#### **interpolator**

soelim(1) — eliminates the source commands from nroff input  
spline(1G) — interpolates a smooth curve

#### **interpreters**

bs(1) — compiles and interprets bs programs  
csh(1) — runs the C shell, a command interpreter with C-like syntax  
ksh(1) — runs the Korn shell, an enhanced command interpreter that is  
backward-compatible with the Bourne shell (sh)  
sh(1) — runs the Bourne shell  
sno(1) — runs the SNOBOL interpreter  
StartupShell(8) — interprets command lines such as those used to  
boot A/UX and check file systems within the A/UX Startup  
application

#### **Interpreting commands**

csh(1) — runs the C shell, a command interpreter with C-like syntax  
ksh(1) — runs the Korn shell, an enhanced command interpreter that is  
backward-compatible with the Bourne shell (sh)  
sh(1) — runs the Bourne shell

#### **interprocess communication**

ipcrm(1) — removes interprocess communications facilities  
ipcs(1) — reports interprocess communication facilities status  
kill(1) — terminates a process  
msgctl(2) — message control operations  
msgget(2) — gets message queue  
msgop(2) — message operations  
semctl(2) — semaphore control operations  
semget(2) — get set of semaphores  
semop(2) — performs semaphore operations  
shmctl(2) — shared memory control operations  
shmget(2) — get shared memory segment  
shmop(2) — shared memory operations  
ftok(3C) — standard interprocess communication package

#### **interval timers**

getitimer(2) — get/set value of interval timer

#### **IOT faults**

abort(3C) — generates an IOT fault

#### **ISO encoding**

mactois(1) — convert between Macintosh encoding and International  
Standards Organization (ISO) encoding

## **issue**

`issue(4)` — project identification file format

## **job control**

`at(1)` — run commands at a later time

`crontab(1)` — aids in the use of the `cron` process scheduling program

`csh(1)` — runs the C shell, a command interpreter with C-like syntax

`env(1)` — sets the environment for command execution

`ksh(1)` — runs the Korn shell, an enhanced command interpreter that is backward-compatible with the Bourne shell (`sh`)

`nice(1)` — executes a command at low priority

`nohup(1)` — runs a command so that it can continue to run even after your session has ended

`shl(1)` — manages the layering of multiple shells

`sleep(1)` — suspends the system for a specified interval of time

`yes(1)` — generates `y` entries in response to requests for input

`chroot(1M)` — changes the root directory for a command

`cron(1M)` — runs the clock daemon

## **join files relationally**

`join(1)` — combines (joins) two relational files

## **Kermit**

`kermit(1C)` — invokes the Kermit file-transfer program

## **kernels**

`uname(1)` — displays identification information about the current system

`autoconfig(1M)` — creates an up-to-date kernel

`chgnod(1M)` — changes the current A/UX system node name

`kconfig(1M)` — tunes kernel parameters for work-load optimization

`module_dump(1M)` — queries kernel files for configuration information

`ncstats(1M)` — displays kernel name cache statistics

`newconfig(1M)` — generates an up-to-date kernel

`newunix(1M)` — manipulates the files that determine the configuration of a new kernel

`rstatd(1M)` — invokes a server for kernel statistics

`uvar(2)` — returns system-specific configuration information

`rstat(3N)` — get performance data from remote kernel

`master(4)` — master kernel-configuration file format

`mem(7)` — provide an interface for access to core memory

`launch(8)` — launches an A/UX kernel from the A/UX Startup environment

## **keyboard maps**

`keyset(1M)` — sets the keyboard for the console

## **keys (encryption)**

`crypt(1)` — encodes and decodes passwords

`makekey(1)` — generates an encryption key

`crypt(3C)` — generate DES encryption

## keywords

`apropos(1)` — locates commands by keyword  
`ident(1)` — displays RCS keywords and their values  
`ndx(1)` — creates a subject-page index for a document  
`subj(1)` — generates a list of subjects from documents  
`ypmatch(1)` — lists the value of a specified key in a Network Information Service (NIS) map

## Korn shell

`ksh(1)` — runs the Korn shell, an enhanced command interpreter that is backward-compatible with the Bourne shell (`sh`)

## labels

`volcopy(1M)` — copy file systems with label checking

## languages

`awk(1)` — scans a file for lines that match a specific pattern  
`bc(1)` — processes an arbitrary-precision arithmetic language  
`bs(1)` — compiles and interprets `bs` programs  
`cc(1)` — invokes the C compiler  
`cpp(1)` — invokes the C language preprocessor  
`csh(1)` — runs the C shell, a command interpreter with C-like syntax  
`efl(1)` — invokes the Extended Fortran Language  
`eqn(1)` — format mathematical text for `troff`  
`f77(1)` — invokes the Fortran 77 compiler  
`ksh(1)` — runs the Korn shell, an enhanced command interpreter that is backward-compatible with the Bourne shell (`sh`)  
`lex(1)` — generates programs for simple lexical tasks  
`neqn(1)` — formats mathematical text for `nroff`  
`nroff(1)` — text formatter  
`pic(1)` — preprocesses `troff` files that contain drawings  
`rpcgen(1)` — generates C source code from a remote procedure call (RPC) source file  
`sh(1)` — runs the Bourne shell  
`sno(1)` — runs the SNOBOL interpreter  
`tbl(1)` — table formatter for `nroff` or `troff`  
`troff(1)` — formats and typesets files  
`yacc(1)` — compiles compilers (yet another compiler-compiler)

## LAP

`lap(3N)` — AppleTalk Link Access Protocol (LLAP/ELAP) interface

## launching Macintosh applications from the command line

`launch(1)` — runs a Macintosh binary application in A/UX

## lexical analysis

`awk(1)` — scans a file for lines that match a specific pattern  
`lex(1)` — generates programs for simple lexical tasks

### library management

`ar(1)` — maintains a library of files in an archive

`mkshlib(1)` — creates a shared library

### life

`life(6)` — plays the game of life

### line counting

`wc(1)` — counts characters, words, and lines in a file

### line discipline

`stty(1)` — sets the modes for a terminal

`line_sane(1M)` — pushes streams line disciplines

`line_push(3)` — routine used to push streams line disciplines

`termio(7)` — provides a general terminal interface

### line numbering

`ld(1)` — invokes the link editor for common object files

`nl(1)` — processes a file through a line numbering filter

`pr(1)` — formats text for a print device

`strip(1)` — strips symbol and line number information from an object file

`linenum(4)` — line number entries in a common object file

### lines, blank (in text)

`ssp(1)` — produces single spaced output

### lines, filling and wrapping

`fmt(1)` — invokes a simple text formatter

`fold(1)` — folds long lines for finite-width output device

### lines, processing text within

`awk(1)` — scans a file for lines that match a specific pattern

`colrm(1)` — removes columns from a file

`comm(1)` — selects or rejects lines common to two sorted files

`cut(1)` — cuts out selected fields of each line of a file

`grep(1)` — search a file for a specific pattern

`head(1)` — displays the first few lines of a file

`join(1)` — combines (joins) two relational files

`line(1)` — reads one line from the standard input

`newform(1)` — changes the format of a text file

`nl(1)` — processes a file through a line numbering filter

`paste(1)` — merges lines of several files or subsequent lines of one file

`rev(1)` — reverses characters within each line of text

`sed(1)` — edits a stream of data

`sort(1)` — sorts or merges files

`tail(1)` — displays the last part of a file

`uniq(1)` — reports repeated lines in a file

`wc(1)` — counts characters, words, and lines in a file



**lines, repeated (in text)**

`uniq(1)` — reports repeated lines in a file

**lines, reversing characters within**

`rev(1)` — reverses characters within each line of text

**Link Access Protocol**

`lap(3N)` — AppleTalk Link Access Protocol (LLAP/ELAP) interface

**link editor (object code)**

`ld(1)` — invokes the link editor for common object files

`a.out(4)` — common assembler and link editor output

**links, file**

`ln(1)` — makes links

`link(2)` — provides a link to a file

`readlink(2)` — read value of a symbolic link

`symlink(2)` — make symbolic link to a file

**listening**

`listen(2N)` — listens for connections on a socket

**literary style**

`diction(1)` — locate wordy sentences in a document

`spell(1)` — find spelling errors

`style(1)` — analyzes the surface characteristics of documents

**locking**

`locking(2)` — provides exclusive file regions for reading or writing

`plock(2)` — enables a lock process for text or data in memory

`lockf(3C)` — records locking on files

**logarithms**

`exp(3F)` — Fortran exponential intrinsic function

`exp(3M)` — provide exponential, logarithm, power, and square root functions

`log10(3F)` — Fortran common logarithm intrinsic function

`log(3F)` — Fortran natural logarithm intrinsic function

`math(5)` — math functions and constants

**logging in and logging out**

`login(1)` — signs you on a terminal session

`logname(1)` — gets the login name

`newgrp(1)` — logs you into a new group

`passwd(1)` — changes the login password

`rlogin(1N)` — logs in to a remote system

`Login(1M)` — logs you in to A/UX by using a graphical user interface

`remlogin(1M)` — runs on a remote system to log you in

`rlogind(1M)` — server for remote logins

`getlogin(3C)` — gets login name

`getusershell(3)` — generate authenticated pathnames corresponding to executable shell programs

`logname(3X)` — return login name of user

auxstartuprc(4) — authorization file that helps password-protect and otherwise secure A/UX Startup  
issue(4) — project identification file format  
passwd(4) — password file  
profile(4) — setting up an environment at login time  
shells(4) — shell pathnames file

#### **long integers**

a64l(3C) — convert between long integer and base-64 ASCII string  
drand48(3C) — generate uniformly distributed pseudo-random numbers  
l3tol(3C) — convert between 3-byte integers and long integers  
sputl(3X) — access long integer data in a machine-independent fashion  
strtol(3C) — convert strings to integer

#### **loopback (software)**

lo(5) — software loopback network interface

#### **lost+found**

mklost+found(1M) — makes a directory named lost+found to be used by fsck

#### **Macintosh desktop**

CommandShell(1) — manages command-interpretation windows and moderates access to the A/UX console window

#### **Macintosh dialog boxes**

Login(1M) — logs you in to A/UX by using a graphical user interface  
macquery(1M) — posts a Macintosh alert box to query the user

#### **Macintosh environment, establishing preferences**

changesize(1) — changes or displays the fields of the ‘SIZE’ resource of a file  
mactois(1) — convert between Macintosh encoding and International Standards Organization (ISO) encoding  
systemfolder(1) — create a personal System Folder  
keyset(1M) — sets the keyboard for the console

#### **Macintosh or Macintosh-related applications**

CommandShell(1) — manages command-interpretation windows and moderates access to the A/UX console window  
TextEditor(1) — lets you edit files interactively through mouse and menu operations  
changesize(1) — changes or displays the fields of the ‘SIZE’ resource of a file  
derez(1) — decompiles a resource file  
launch(1) — runs a Macintosh binary application in A/UX  
mactois(1) — convert between Macintosh encoding and International Standards Organization (ISO) encoding  
rez(1) — compiles Macintosh resource files from source code  
setfile(1) — sets attributes for Macintosh files, such as file type and creator

systemfolder(1) — create a personal System Folder  
Login(1M) — logs you in to A/UX by using a graphical user interface  
keyset(1M) — sets the keyboard for the console  
macquery(1M) — posts a Macintosh alert box to query the user

#### Macintosh resources

derez(1) — decompiles a resource file  
fcnvt(1) — converts a file in one storage format to a different storage format  
rez(1) — compiles Macintosh resource files from source code  
setfile(1) — sets attributes for Macintosh files, such as file type and creator

#### Macintosh toolbox

slots(3X) — provides ROM library functions

#### Macintosh user interface

cmdo(1) — builds command lines interactively  
macquery(1M) — posts a Macintosh alert box to query the user

#### macros, format

checkmm(1) — check documents formatted with the mm macros  
m4(1) — processes macros for C and other languages  
macref(1) — produces a cross-reference listing of macro files  
mm(1) — formats documents that contain nroff and mm macro formatting requests  
man(5) — macros for formatting entries in this manual  
me(5) — macros for formatting papers  
mm(5) — macro package for formatting documents  
mptx(5) — the macro package for formatting a permuted index  
ms(5) — text formatting macros  
mv(5) — a troff macro package for typesetting viewgraphs and slides

#### magic numbers

a.out(4) — common assembler and link editor output  
magic(4) — magic number file for file command

#### magnetic tape

mt(1) — manipulates magnetic tape media  
tar(1) — copies files to or from a tar archive  
tcb(1) — blocks data to 8K for direct input to /dev/rmt/tcx  
tp(1) — copies files to or from a tp archive  
tar(4) — format of tar header  
mtio(7) — provides an interface library for magnetic tape devices  
tc(7) — tape device driver

#### mail handling

biff(1) — enables and disables notification of mail by comsat  
from(1) — displays the mail header lines in your mailbox  
mail(1) — send mail to users or read mail  
mailx(1) — enables you to send and receive messages electronically

mesg(1) — permits or denies the receipt of messages  
rmail(1) — handles remote mail received via UUCP  
talk(1N) — talks to another user via the terminal  
write(1) — writes to another user  
comsat(1M) — invokes the server for biff  
mailq(1M) — lists the contents of the mail queue  
newaliases(1M) — rebuilds the database for the mail aliases file  
sendmail(1M) — sends mail  
aliases(4) — address and alias format used by sendmail

#### **mail system, maintenance of**

rmail(1) — handles remote mail received via UUCP  
comsat(1M) — invokes the server for biff  
mailq(1M) — lists the contents of the mail queue  
newaliases(1M) — rebuilds the database for the mail aliases file  
sendmail(1M) — sends mail

#### **manual pages**

apropos(1) — locates commands by keyword  
man(1) — displays the named manual page entries  
whatis(1) — reports a brief description for the manual page entry  
specified  
whereis(1) — reports the locations of the source, binary, and online help  
files for a specified command  
man(5) — macros for formatting entries in this manual

#### **masks**

sigblock(2) — block signals  
sigpause(2) — release blocked signals and wait for interrupt  
sigsetmask(2) — set current signal mask  
umask(2) — set and get file creation mask  
sigprocmask(3P) — examines and changes blocked signals

#### **mastermind**

mastermind(6) — plays the game of Mastermind

#### **mathematical text**

deroff(1) — removes nroff/troff, tbl, and eqn constructs  
eqn(1) — format mathematical text for troff  
neqn(1) — formats mathematical text for nroff  
eqnchar(5) — special character definitions for eqn and neqn

#### **mathematics**

bc(1) — processes an arbitrary-precision arithmetic language  
dc(1) — desk calculator  
abs(3C) — return integer absolute value  
abs(3F) — Fortran absolute value  
acos(3F) — Fortran arccosine intrinsic function  
aimag(3F) — Fortran imaginary part of complex argument  
aint(3F) — Fortran integer part intrinsic function

asin(3F) — Fortran arcsine intrinsic function  
atan2(3F) — Fortran arctangent intrinsic function  
atan(3F) — Fortran arctangent intrinsic function  
atof(3C) — converts an ASCII string to floating-point number  
bessel(3M) — Bessel functions  
bool(3F) — Fortran bitwise boolean functions  
conjg(3F) — Fortran complex conjugate intrinsic function  
cos(3F) — Fortran cosine intrinsic function  
cosh(3F) — Fortran hyperbolic cosine intrinsic function  
dim(3F) — Fortran positive difference intrinsic functions  
dprod(3F) — Fortran double precision product intrinsic function  
ecvt(3C) — convert floating-point number to string  
exp(3F) — Fortran exponential intrinsic function  
exp(3M) — provide exponential, logarithm, power, and square root functions  
floor(3M) — floor, ceiling, remainder, absolute value functions  
frexp(3C) — manipulate parts of floating-point numbers  
gamma(3M) — logs a gamma function  
hypot(3M) — provides the Euclidean distance function  
l3tol(3C) — convert between 3-byte integers and long integers  
log10(3F) — Fortran common logarithm intrinsic function  
log(3F) — Fortran natural logarithm intrinsic function  
matherr(3M) — provides an error-handling function  
max(3F) — provides Fortran maximum-value functions  
min(3F) — provide Fortran minimum-value functions  
mod(3F) — provide Fortran remaindering intrinsic functions  
rand(3C) — call a simple random-number generator  
rand(3F) — provide a Fortran uniform random-number generator  
round(3F) — provide Fortran nearest integer functions  
sign(3F) — returns Fortran transfer-of-sign intrinsic functions  
sin(3F) — provide Fortran sine intrinsic functions  
sinh(3F) — provide Fortran hyperbolic sine intrinsic function  
sinh(3M) — provide hyperbolic functions  
sputl(3X) — access long integer data in a machine-independent fashion  
sqrt(3F) — provide Fortran square root intrinsic functions  
strtod(3C) — converts a string to a double-precision number  
strtol(3C) — convert strings to integer  
tan(3F) — Fortran tangent intrinsic function  
tanh(3F) — Fortran hyperbolic tangent intrinsic function  
trig(3M) — provide trigonometric functions  
math(5) — math functions and constants

### maximum values

max(3F) — provides Fortran maximum-value functions

### maze

maze(6) — generates a maze

### memory, general

pagesize(1) — displays the system page size

swap(1M) — adds disk blocks to or deletes them from the swap area

brk(2) — change data segment space allocation

phys(2) — allows a process to access physical addresses

plock(2) — enables a lock process for text or data in memory

end(3C) — last locations in program

malloc(3C) — provide a main memory allocator

malloc(3X) — provide a fast main memory allocator

memory(3C) — perform memory operations

core(4) — format of core image file

mem(7) — provide an interface for access to core memory

### memory, shared

mkshlib(1) — creates a shared library

shmctl(2) — shared memory control operations

shmget(2) — get shared memory segment

shmop(2) — shared memory operations

### merging files

cat(1) — concatenates and displays the contents of files

join(1) — combines (joins) two relational files

merge(1) — merges three files into one

paste(1) — merges lines of several files or subsequent lines of one file

soelim(1) — eliminates the source commands from nroff input

sort(1) — sorts or merges files

tsort(1) — sorts lines in a file topologically

acctmerg(1M) — merges or adds accounting files

### message queue

msgget(2) — gets message queue

### messages

ipcrm(1) — removes interprocess communications facilities

ipcs(1) — reports interprocess communication facilities status

msg(1) — permits or denies the receipt of messages

write(1) — writes to another user

msgctl(2) — message control operations

msgget(2) — gets message queue

msgop(2) — message operations

recv(2N) — receive a message from a socket

send(2N) — send a message from a socket

### minimum values

min(3F) — provide Fortran minimum-value functions

### modems

ct(1C) — runs login on a dial-up line  
cu(1C) — establishes an interactive connection with another system  
kermit(1C) — invokes the Kermit file-transfer program  
tip(1C) — establishes a connection to a remote system  
uucp(1C) — copies files from one system to another system  
uux(1C) — runs a command on a remote system  
slip(1M) — assigns a serial line to a network interface  
uucico(1M) — transfers files as specified by uucp work files  
dial(3C) — establishes an out-going terminal line connection  
dialup(4) — modem escape sequence file  
phones(4) — remote host telephone number database

### modification times, file

ls(1) — lists the contents of a directory  
touch(1) — updates access and modification times of a file  
utime(2) — set file access and modification times

### monitor processing

300(1) — filter text containing printer control sequences for a DASI terminal  
4014(1) — filters text containing printer control sequences a page at a time  
450(1) — filters text containing printer control sequences for the DASI terminal  
col(1) — filters text containing printer control sequences for use at a display device  
colcrt(1) — filters nroff output for terminal previewing  
greek(1) — filters text for vintage display devices  
tc(1) — interprets troff output for use at a vintage display device  
tplot(1G) — interprets plotter instructions for use at a vintage display device  
ul(1) — filters special underlining sequences imbedded in text for use at a display device

### moo

moo(6) — plays the game of moo

### Motorola S-records

hex(1) — converts an object file to Motorola S-record format  
rcvhex(1) — receives and converts Motorola S-records from a port to a file

### mounting file systems

automount(1M) — mounts Network File System (NFS) when needed  
mount(1M) — mount and unmount file systems  
mountd(1M) — invokes the Network File System (NFS) mount-request

**server**  
 showmount(1M) — shows all remote mounts  
 umount(2) — unmount a file system  
 mount(3) — mounts a file system  
 mount(3N) — keeps track of remotely mounted file systems  
 fstab(4) — parameter file format  
 mtab(4) — mounted file system table

**mouse**  
 mouse(7) — provides a mouse input device driver

**moving files**  
 mv(1) — moves or renames files

**multiplexing**  
 select(2N) — synchronous I/O multiplexing

**multiplication**  
 dprod(3F) — Fortran double precision product intrinsic function

**name binding**  
 yperv(1M) — provide Network Information Service (NIS) service  
 bind(2N) — bind a name to a socket  
 HOSTNAME(4) — host name and domain name database

**Name Binding Protocol**  
 nbp(3N) — perform AppleTalk Name Binding Protocol (NBP) interface operations

**name cache**  
 ncstats(1M) — displays kernel name cache statistics

**Name Information Server**  
 domainname(1) — sets or displays the name of the Network Information Service (NIS) domain  
 ypcat(1) — lists the contents of a Network Information Service (NIS) map  
 ypmatch(1) — lists the value of a specified key in a Network Information Service (NIS) map  
 yppasswd(1) — changes a login password on the Network Information Service (NIS) master server  
 ypwhich(1) — displays the host name of a system's Network Information Service (NIS) server  
 makedbm(1M) — generates a Network Information Service (NIS) dbm file  
 revnetgroup(1M) — reverses the net group file  
 ypinit(1M) — initializes Network Information Service (NIS) maps for master and slave servers  
 ypmake(1M) — rebuilds the Network Information Service (NIS) maps  
 yppasswdd(1M) — handle requests to change a password served by the Network Information Service (NIS)  
 yppoll(1M) — reports the version of a Network Information Service



(NIS) map that is on an NIS server  
yppush(1M) — propagates changed Network Information Service (NIS) maps  
ypserv(1M) — provide Network Information Service (NIS) service  
ypset(1M) — sets ypbind to a particular domain and Network Information Service (NIS) server  
ypxfr(1M) — transfers a Network Information Service (NIS) map to the local system  
ypclnt(3N) — provide a Network Information Service (NIS) client interface  
yppasswd(3N) — updates a user password on the Network Information Service (NIS) master server  
ethers(4) — Ethernet address to host name database or YP domain  
ypfiles(4) — the Network Information Service (NIS) database and directory structure

#### **Name Information Server maps**

ypwhich(1) — displays the host name of a system's Network Information Service (NIS) server  
yppoll(1M) — reports the version of a Network Information Service (NIS) map that is on an NIS server  
yppush(1M) — propagates changed Network Information Service (NIS) maps  
ypxfr(1M) — transfers a Network Information Service (NIS) map to the local system

#### **name servers**

nslookup(1) — interactively queries name servers  
ypcat(1) — lists the contents of a Network Information Service (NIS) map

#### **NBP**

nbp(3N) — perform AppleTalk Name Binding Protocol (NBP) interface operations

#### **network bridges**

rtnp(3N) — identify AppleTalk node and bridge addresses

#### **network domains**

ypwhich(1) — displays the host name of a system's Network Information Service (NIS) server  
ypset(1M) — sets ypbind to a particular domain and Network Information Service (NIS) server  
getdomainname(2N) — get/set name of current network domain

#### **Network File System**

domainname(1) — sets or displays the name of the Network Information Service (NIS) domain  
automount(1M) — mounts Network File System (NFS) when needed  
exportfs(1M) — exports and unexports directories to Network File

### System (NFS) clients

lockd(1M) — handle local and remote lock requests

mountd(1M) — invokes the Network File System (NFS) mount-request  
server

nfsd(1M) — invoke the NFS daemons

nfsstat(1M) — displays Network File System (NFS) statistics

rpcinfo(1M) — reports RPC information

showmount(1M) — shows all remote mounts

spray(1M) — sprays packets

sprayd(1M) — returns information for the `spray` command

statd(1M) — provide crash and recovery monitoring for network locking  
services

fsmount(2) — mount a network file system (NFS)

nfsd(2) — provides NFS daemons

exportent(3) — get exported file-system information

exports(4) — directories to export to Network File System (NFS) clients

fstab(4) — parameter file format

### network groups

ypcat(1) — lists the contents of a Network Information Service (NIS)

#### map

revnetgroup(1M) — reverses the `netgroup` file

getnetgrent(3N) — get network group entry

netgroup(4) — list of network groups

### network maintenance, Name Information Server

ypcat(1) — lists the contents of a Network Information Service (NIS)

#### map

ypmatch(1) — lists the value of a specified key in a Network Information  
Service (NIS) map

yppasswd(1) — changes a login password on the Network Information  
Service (NIS) master server

ypwhich(1) — displays the host name of a system's Network Information  
Service (NIS) server

makedbm(1M) — generates a Network Information Service (NIS) dbm  
file

revnetgroup(1M) — reverses the `netgroup` file

ypinit(1M) — initializes Network Information Service (NIS) maps for  
master and slave servers

ypmake(1M) — rebuilds the Network Information Service (NIS) maps

yppasswdd(1M) — handle requests to change a password served by the  
Network Information Service (NIS)

yppoll(1M) — reports the version of a Network Information Service  
(NIS) map that is on an NIS server

yppush(1M) — propagates changed Network Information Service (NIS)  
maps

ypserv(1M) — provide Network Information Service (NIS) service  
ypset(1M) — sets ypbind to a particular domain and Network  
Information Service (NIS) server  
ypxfr(1M) — transfers a Network Information Service (NIS) map to the  
local system

#### **network maintenance, UUCP system**

Uutry(1M) — contacts a remote system with debugging on  
uucheck(1M) — checks the uucp directories and files  
uucico(1M) — transfers files as specified by uucp work files  
uucleanup(1M) — removes old files from the uucp spool directory  
uucpd(1M) — handles the transfer of files by uucico over TCP/IP  
connections  
uudemon.admin(1M) — mails current uucp work status to the uucp  
administrator  
uudemon.cleanup(1M) — cleans up files in the uucp spool directory  
uudemon.hour(1M) — processes spooled uucp requests  
uudemon.poll(1M) — sets up polling for selected systems  
uusched(1M) — schedules uucp file transfers

#### **network protocols**

getprotoent(3N) — get a protocol entry  
protocols(4N) — protocol name database

#### **network, status**

rup(1N) — displays the status of machines on the local network (RPC  
version)  
ruptime(1N) — displays the host status of local machines  
rusers(1N) — produces a login list for local machines (RPC version)  
rwho(1N) — displays a list of the active users from all of the systems on  
the local network  
ether(3N) — monitors Ethernet traffic  
sm\_inter(3N) — status monitor protocol

#### **network testing**

ping(1M) — exercises the TCP/IP network by sending Internet Control  
Message Protocol (ICMP) packets to a named host  
lo(5) — software loopback network interface

#### **networks, general**

atstatus(1) — displays status information from an AppleTalk device  
checkinstall(1) — checks the installation of boards  
netstat(1N) — displays network status information  
ypcat(1) — lists the contents of a Network Information Service (NIS)  
map  
ypmatch(1) — lists the value of a specified key in a Network Information  
Service (NIS) map  
yppasswd(1) — changes a login password on the Network Information  
Service (NIS) master server

ypwhich(1) — displays the host name of a system's Network Information Service (NIS) server  
 appletalk(1M) — exercises the AppleTalk network by sending packets to a named host  
 appletalk(1M) — enables you to configure and display AppleTalk network interfaces  
 ifconfig(1M) — manages network interfaces  
 lockd(1M) — handle local and remote lock requests  
 ping(1M) — exercises the TCP/IP network by sending Internet Control Message Protocol (ICMP) packets to a named host  
 route(1M) — manipulates the routing tables  
 routed(1M) — invokes the network routing daemon  
 rwall(1M) — writes to all users over a network  
 rwall(1M) — invokes the network rwall server  
 slattach(1M) — attaches a serial line to a network interface  
 slattach(1M) — attaches a serial line to a network interface and configures the network interface  
 slip(1M) — assigns a serial line to a network interface  
 statd(1M) — provide crash and recovery monitoring for network locking services  
 ypinit(1M) — initializes Network Information Service (NIS) maps for master and slave servers  
 ypmake(1M) — rebuilds the Network Information Service (NIS) maps  
 yppasswd(1M) — handle requests to change a password served by the Network Information Service (NIS)  
 yppoll(1M) — reports the version of a Network Information Service (NIS) map that is on an NIS server  
 yppush(1M) — propagates changed Network Information Service (NIS) maps  
 ypserv(1M) — provide Network Information Service (NIS) service  
 ypset(1M) — sets ypbind to a particular domain and Network Information Service (NIS) server  
 ypxfr(1M) — transfers a Network Information Service (NIS) map to the local system  
 connect(2N) — initiates a connection on a socket  
 socket(2N) — create an endpoint for communication  
 socketpair(2) — creates a pair of connected sockets  
 byteorder(3N) — convert values between host and network byte order  
 gethostbyaddr(3N) — get network host entry  
 getnetent(3N) — get network entry  
 rwall(3N) — writes to specified remote machines  
 ypclnt(3N) — provide a Network Information Service (NIS) client interface  
 yppasswd(3N) — updates a user password on the Network Information

Service (NIS) master server  
NETADDRS(4) — network address database  
appletalkrc(4) — obsolete AppleTalk network configuration file  
ypfiles(4) — the Network Information Service (NIS) database and  
directory structure  
lo(5) — software loopback network interface

#### news

news(1) — displays local news items

#### NFS

automount(1M) — mounts Network File System (NFS) when needed  
exportfs(1M) — exports and unexports directories to Network File  
System (NFS) clients  
mountd(1M) — invokes the Network File System (NFS) mount-request  
server  
nfsd(1M) — invoke the NFS daemons  
nfsstat(1M) — displays Network File System (NFS) statistics  
fsmount(2) — mount a network file system (NFS)  
nfssvc(2) — provides NFS daemons  
exportent(3) — get exported file-system information  
exports(4) — directories to export to Network File System (NFS) clients  
fstab(4) — parameter file format

#### nodes

uname(1) — displays identification information about the current system  
chgnod(1M) — changes the current A/UX system node name  
mknod(1M) — builds a device file  
rtmp(3N) — identify AppleTalk node and bridge addresses  
intro(7) — introduces device drivers and interfaces

#### notification (mail)

biff(1) — enables and disables notification of mail by comsat

#### nroff

checknr(1) — checks nroff/troff files  
colcrt(1) — filters nroff output for terminal previewing  
deroff(1) — removes nroff/troff, tbl, and eqn constructs  
diffmk(1) — marks the differences between two files  
mm(1) — formats documents that contain nroff and mm macro  
formatting requests  
neqn(1) — formats mathematical text for nroff  
nroff(1) — text formatter  
soelim(1) — eliminates the source commands from nroff input  
tbl(1) — table formatter for nroff or troff  
eqnchar(5) — special character definitions for eqn and neqn  
mptx(5) — the macro package for formatting a permuted index  
ms(5) — text formatting macros  
nterm(5) — terminal driving tables for nroff

**null device**

null(7) — represents the null device file

**numbers**

arithmetic(6) — provides arithmetic problems

number(6) — converts Arabic numerals to English

**numeric sign**

sign(3F) — returns Fortran transfer-of-sign intrinsic functions

**NVE**

atlookup(1) — looks up network-visible entities (NVEs) registered on the AppleTalk network system

**object file**

conv(1) — swaps bytes in COFF files

dump(1) — stores (saves) selected parts of an object file

ld(1) — invokes the link editor for common object files

nm(1) — displays the symbol table of a common object file

strings(1) — finds the printable strings in an object or other binary file

cpset(1M) — installs files in specified directories

ldclose(3X) — close a common object file

ldfcn(3X) — provide common object file access routines

ldfhread(3X) — read the file header of a common object file

ldgetname(3X) — retrieves symbol name for object file symbol table entry

ldlread(3X) — manipulate line number entries of a common object file function

ldlseek(3X) — seek to line number entries of a section of a common object file

ldohseek(3X) — seek to the optional file header of a common object file

ldopen(3X) — open a common object file for reading

ldrseek(3X) — seek to relocation entries of a section of a common object file

ldshread(3X) — read an indexed/named section header of a common object file

ldsseek(3X) — seek to an indexed/named section of a common object file

ldtbindex(3X) — compute index of a symbol table entry of a common object file

ldtbread(3X) — read an indexed symbol table entry of a common object file

ldtbseek(3X) — seek to the symbol table of a common object file

nlist(3C) — gets entries from name list

a.out(4) — common assembler and link editor output

aouthdr(4) — a.out header for common object files

filehdr(4) — file header for common object files

linenum(4) — line number entries in a common object file

reloc(4) — relocation information for a common object file

scnhdr(4) — section header for a common object file

syms(4) — common object file symbol table format

#### **octal**

od(1) — converts binary data to a displayable form in octal, decimal, hexadecimal, or ASCII

#### **online documentation**

apropos(1) — locates commands by keyword

man(1) — displays the named manual page entries

whatis(1) — reports a brief description for the manual page entry specified

whereis(1) — reports the locations of the source, binary, and online help files for a specified command

man(5) — macros for formatting entries in this manual

#### **optimization**

cc(1) — invokes the C compiler

prof(1) — displays profile data

dcopy(1M) — copies System V File System-style file systems for optimal access time

kconfig(1M) — tunes kernel parameters for work-load optimization

sadc(1M) — report system activity

tunefs(1M) — tunes a Berkeley 4.2 (UFS) file system

profil(2) — reports the execution time of an application

curses5.0(3X) — provides BSD-style screen functions with optimal cursor motion

curses(3X) — CRT screen handling and optimization package

#### **overviews**

intro(1) — introduces the command and application programs

rcsintro(1) — introduces RCS commands

acct(1M) — present an overview of accounting commands

intro(1M) — introduces system maintenance commands

intro(2) — introduces system calls and error numbers

intro(3) — introduces the subroutines and libraries

intro(4) — introduction to file formats

intro(5) — introduction to miscellaneous facilities

intro(6) — introduction to games

intro(7) — introduces device drivers and interfaces

intro(8) — introduces commands executed from the A/UX Startup shell

#### **ownership, file**

chown(1) — change the owner or group of a file

ls(1) — lists the contents of a directory

chown(2) — changes the owner and group of a file

## packets

spray(1M) — sprays packets  
sprayd(1M) — returns information for the spray command  
spray(3N) — scatters data in order to check the network

## pagination

4014(1) — filters text containing printer control sequences a page at a time  
daps(1) — invokes the Autologic APS-5 phototypesetter troff post-processor  
enscript(1) — converts text files to format for printing  
mun(1) — formats documents that contain nroff and mun macro formatting requests  
mmt(1) — typeset documents that contain troff and mun or mv macro-formatting requests  
mvt(1) — typeset documents that contain troff and mun or mv macro-formatting requests  
nroff(1) — text formatter  
otroff(1) — formats text for a specific phototypesetter  
pr(1) — formats text for a print device  
psdit(1) — converts troff intermediate format to POSTSCRIPT format  
psroff(1) — formats a file through troff so it can be printed on a POSTSCRIPT printer  
roffbib(1) — prints out all records in a bibliographic database  
troff(1) — formats and typesets files

## PAP

atprint(1) — transfers data to a printer by using AppleTalk protocols  
atstatus(1) — displays status information from an AppleTalk device  
pap(3N) — provide AppleTalk Printer Access Protocol (PAP) interface

## parser

awk(1) — scans a file for lines that match a specific pattern  
getopt(1) — parses command options  
lex(1) — generates programs for simple lexical tasks  
yacc(1) — compiles compilers (yet another compiler-compiler)

## partitions

dd(1) — converts and copies a file  
dp(1M) — performs disk partitioning  
pname(1M) — associates named partitions with device files  
getptabent(3) — get partition table file entry  
bzb(4) — Block Zero Block file format  
dpme(4) — format of disk partition map entries  
ptab(4) — partition table file



## **password file**

`finger(1)` — displays information about the users on a system  
`pwck(1M)` — check the password/group files  
`vipw(1M)` — edits the password file  
`yppasswdd(1M)` — handle requests to change a password served by the  
    Network Information Service (NIS)  
`getpwent(3C)` — get the password file entry  
`putpwent(3C)` — write password file entry  
`passwd(4)` — password file

## **passwords**

`crypt(1)` — encodes and decodes passwords  
`passwd(1)` — changes the login password  
`yppasswd(1)` — changes a login password on the Network Information  
    Service (NIS) master server  
`getpass(3C)` — read a password  
`getpwent(3C)` — get the password file entry  
`putpwent(3C)` — write password file entry  
`yppasswd(3N)` — updates a user password on the Network Information  
    Service (NIS) master server  
`auxstartuprc(4)` — authorization file that helps password-protect and  
    otherwise secure A/UX Startup

## **path string functions**

`basename(1)` — get part of a pathname  
`realpath(3)` — returns the real filename of a file

## **pathnames**

`basename(1)` — get part of a pathname  
`whereis(1)` — reports the locations of the source, binary, and online help  
    files for a specified command  
`pathconf(3P)` — get configurable pathname variables  
`realpath(3)` — returns the real filename of a file

## **patterns**

`awk(1)` — scans a file for lines that match a specific pattern  
`grep(1)` — search a file for a specific pattern  
`regexp(5)` — regular expression compile and match routines

## **pause**

`shl(1)` — manages the layering of multiple shells  
`sleep(1)` — suspends the system for a specified interval of time  
`sigpause(2)` — release blocked signals and wait for interrupt  
`wait3(2N)` — wait for child process to stop or terminate  
`wait(2)` — wait for child process to stop or terminate  
`sigsuspend(3P)` — waits for a signal  
`sleep(3C)` — suspends execution for interval  
`tcdrain(3P)` — provide line control functions  
`usleep(3)` — suspend execution for interval

## **PDP-11 computer**

swab(3C) — swaps bytes

## **peer**

getpeername(2N) — gets the name of a connected peer

## **performance**

cc(1) — invokes the C compiler

nice(1) — executes a command at low priority

prof(1) — displays profile data

timex(1) — reports the elapsed, user, and system time during the execution of a command

kconfig(1M) — tunes kernel parameters for work-load optimization

profil(2) — reports the execution time of an application

monitor(3C) — prepares an execution profile

## **peripheral device files**

tty(1) — obtains the device filename for the terminal or CommandShell window where it is invoked

dev\_kill(1M) — removes device files from a directory

devnm(1M) — displays the current device name

mknod(1M) — builds a device file

pname(1M) — associates named partitions with device files

tty(7) — controls the terminal interface

## **permissions**

chmod(1) — changes the permissions of a file

chown(1) — change the owner or group of a file

chmod(2) — change mode of file

umask(2) — set and get file creation mask

## **permuted index**

mptx(5) — the macro package for formatting a permuted index

## **pi**

math(5) — math functions and constants

## **pipe**

tee(1) — transcribes data

pipe(2) — creates an interprocess channel

popen(3S) — initiate pipe to/from a process

## **plotters**

pac(1M) — gathers printer/plotter accounting information

## **plotting**

graph(1G) — draws a graph

spline(1G) — interpolates a smooth curve

tplot(1G) — interprets plotter instructions for use at a vintage display device

plot(3X) — provide graphics interface subroutines

plot(4) — graphics interface

## portability

- ar(1) — maintains a library of files in an archive
- lint(1) — invokes a C program checker
- pax(1) — copies files to or from an archive in an IEEE format

## ports

- ct(1C) — runs login on a dial-up line
- cu(1C) — establishes an interactive connection with another system
- kermit(1C) — invokes the Kermit file-transfer program
- stty(1) — sets the modes for a terminal
- tip(1C) — establishes a connection to a remote system
- tty(1) — obtains the device filename for the terminal or CommandShell window where it is invoked
- updater(1) — updates files between two machines
- getty(1M) — set the initial communication modes, such as speed and line discipline, for the purpose of logging users in to A/UX through serial lines
- setport(1M) — sets the characteristics of a serial port
- slattach(1M) — attaches a serial line to a network interface
- slattconf(1M) — attaches a serial line to a network interface and configures the network interface
- slip(1M) — assigns a serial line to a network interface
- gettydefs(4) — speed and terminal settings used by getty
- inittab(4) — script for the init process
- ttytype(4) — database of terminal types by port
- serial(7) — provides the on-board serial ports

## POSIX compatibility

- setposix(3P) — sets POSIX compatibility flags

## poster-size text

- banner7(1) — generates a large banner
- banner(1) — generates a poster

## posters, printing text for

- banner7(1) — generates a large banner
- banner(1) — generates a poster

## PostScript®

- enscript(1) — converts text files to format for printing
- psdit(1) — converts troff intermediate format to POSTSCRIPT format
- psroff(1) — formats a file through troff so it can be printed on a POSTSCRIPT printer
- transcript(1M) — filter data for the POSTSCRIPT printers
- afm(4) — Adobe POSTSCRIPT font metrics file format
- postscript(4) — POSTSCRIPT print file format

## **power**

`powerdown(1M)` — turns off power to the computer

## **preferences, Macintosh**

`changesize(1)` — changes or displays the fields of the ‘SIZE’ resource of a file

`mactois(1)` — convert between Macintosh encoding and International Standards Organization (ISO) encoding

`systemfolder(1)` — create a personal System Folder

`keyset(1M)` — sets the keyboard for the console

## **preprocessors, text**

`awk(1)` — scans a file for lines that match a specific pattern

`col(1)` — filters text containing printer control sequences for use at a display device

`comm(1)` — selects or rejects lines common to two sorted files

`cpp(1)` — invokes the C language preprocessor

`cw(1)` — prepare constant-width text for `otroff`

`daps(1)` — invokes the Autologic APS-5 phototypesetter `troff` post-processor

`deroff(1)` — removes `nroff/troff`, `tbl`, and `eqn` constructs

`eqn(1)` — format mathematical text for `troff`

`expand(1)` — expand tabs to spaces, and vice versa

`fmt(1)` — invokes a simple text formatter

`fold(1)` — folds long lines for finite-width output device

`grap(1)` — invokes a `pic` preprocessor for drawing graphs

`iw2(1)` — prepares data to be printed on the Apple ImageWriter II printer

`m4(1)` — processes macros for C and other languages

`neqn(1)` — formats mathematical text for `nroff`

`pic(1)` — preprocesses `troff` files that contain drawings

`pr(1)` — formats text for a print device

`rev(1)` — reverses characters within each line of text

`soelim(1)` — eliminates the source commands from `nroff` input

`sort(1)` — sorts or merges files

`ssp(1)` — produces single spaced output

`tabs(1)` — sets the tab stops on a terminal

`tbl(1)` — table formatter for `nroff` or `troff`

`uniq(1)` — reports repeated lines in a file

## **pretty printing**

`cb(1)` — improves spacing and indentation of C source files

`indent(1)` — indents and formats C program source

## **Print Access Protocol**

`atprint(1)` — transfers data to a printer by using AppleTalk protocols

`atstatus(1)` — displays status information from an AppleTalk device

`pap(3N)` — provide AppleTalk Printer Access Protocol (PAP) interface

### **print spooler maintenance**

`enable(1)` — enable or disable LP printers  
`lpstat(1)` — prints lp status information  
`accept(1M)` — allows lp requests  
`lpadmin(1M)` — configures the lp spooling system  
`lpc(1M)` — controls the operation of the line printer  
`lpd(1M)` — supports the Berkeley print spooler ." 4.2 line-printer daemon  
`lpsched(1M)` — start or stop the lp request scheduler and move requests  
`lptest(1M)` — generates a line-printer ripple pattern  
`reject(1M)` — prevents LP requests  
`transcript(1M)` — filter data for the POSTSCRIPT printers

### **printer testing**

`lptest(1M)` — generates a line-printer ripple pattern

### **printers, general**

`asa(1)` — interprets ASA carriage control characters  
`at_cho_prn(1)` — allows you to choose a default printer on the  
    AppleTalk internet  
`cancel(1)` — cancels print requests spooled through the lp command  
`enable(1)` — enable or disable LP printers  
`lp(1)` — spools print requests to printers  
`lpq(1)` — queries the print spooler for progress information  
`lpr(1)` — spools print requests to printers  
`lprm(1)` — removes jobs from the line printer spooling queue for a  
    Berkeley file system (4.2)  
`lpstat(1)` — prints lp status information  
`accept(1M)` — allows lp requests  
`lpadmin(1M)` — configures the lp spooling system  
`lpc(1M)` — controls the operation of the line printer  
`lpd(1M)` — supports the Berkeley print spooler ." 4.2 line-printer daemon  
`lpsched(1M)` — start or stop the lp request scheduler and move requests  
`lptest(1M)` — generates a line-printer ripple pattern  
`pac(1M)` — gathers printer/plotter accounting information  
`reject(1M)` — prevents LP requests

### **printing, Appletalk**

`at_cho_prn(1)` — allows you to choose a default printer on the  
    AppleTalk internet  
`atlookup(1)` — looks up network-visible entities (NVEs) registered on  
    the AppleTalk network system  
`atprint(1)` — transfers data to a printer by using AppleTalk protocols  
`atstatus(1)` — displays status information from an AppleTalk device

### **printing files**

`cancel(1)` — cancels print requests spooled through the lp command  
`lp(1)` — spools print requests to printers  
`lpq(1)` — queries the print spooler for progress information

lpr(1) — spools print requests to printers  
 lprm(1) — removes jobs from the line printer spooling queue for a Berkeley file system (4.2)

**printing, poster-size text**

banner7(1) — generates a large banner  
 banner(1) — generates a poster

**priority (process)**

nice(1) — executes a command at low priority  
 nice(2) — changes the priority of a process

**process accounting**

lav(1) — displays load average statistics  
 acctcms(1M) — summarizes commands from per-process accounting records  
 acctcom(1M) — searches and formats process accounting files  
 acctprc(1M) — provide process accounting  
 acct(2) — enable or disable process accounting  
 times(2) — get process and child process times  
 acct(4) — per-process accounting file format  
 prof(5) — profile within a function

**process groups**

getpid(2) — get process, process group, or parent process IDs  
 killpg(3N) — sends signal to a process group  
 tcgetpgrp(3P) — gets distinguished process group ID  
 tcsetpgrp(3P) — sets distinguished process group ID

**process IDs**

ps(1) — reports process status  
 getpid(2) — get process, process group, or parent process IDs

**process limits**

kconfig(1M) — tunes kernel parameters for work-load optimization  
 ulimit(2) — get and set user limits

**process priority**

nice(1) — executes a command at low priority  
 nice(2) — changes the priority of a process

**process scheduling**

at(1) — run commands at a later time  
 crontab(1) — aids in the use of the cron process scheduling program  
 nice(1) — executes a command at low priority  
 cron(1M) — runs the clock daemon  
 alarm(2) — sets a process's alarm clock

**process termination**

kill(1) — terminates a process  
 nohup(1) — runs a command so that it can continue to run even after your session has ended  
 killall(1M) — kills all active processes

shutdown(1M) — terminates processes that support multi-user mode and enters single-user mode

exit(2) — terminate process

abort(3C) — generates an IOT fault

abort(3F) — terminates a Fortran program

#### processes, general

kill(1) — terminates a process

ps(1) — reports process status

fuser(1M) — identifies processes using a file or file structure

init(1M) — spawn general processes

killall(1M) — kills all active processes

lockd(1M) — handle local and remote lock requests

exit(2) — terminate process

fork(2) — creates a new process

getpid(2) — get process, process group, or parent process IDs

kill(2) — sends a signal to a process or a group of processes

nice(2) — changes the priority of a process

pause(2) — suspends a process until signal

phys(2) — allows a process to access physical addresses

pipe(2) — creates an interprocess channel

plock(2) — enables a lock process for text or data in memory

ptrace(2) — process trace

setcompat(2) — set or get process compatibility mode

wait3(2N) — wait for child process to stop or terminate

wait(2) — wait for child process to stop or terminate

killpg(3N) — sends signal to a process group

popen(3S) — initiate pipe to/from a process

#### processes, monitoring

time(1) — prints the elapsed time during the execution of a command

timex(1) — reports the elapsed, user, and system time during the execution of a command

#### processes, signaling

ipcrm(1) — removes interprocess communications facilities

kill(1) — terminates a process

#### processing unit

machid(1) — provide truth values about processor type

values(5) — machine-dependent values

#### processors, text

awk(1) — scans a file for lines that match a specific pattern

col(1) — filters text containing printer control sequences for use at a display device

comm(1) — selects or rejects lines common to two sorted files

cpp(1) — invokes the C language preprocessor

daps(1) — invokes the Autologic APS-5 phototypesetter troff post-

### processor

`deroff(1)` — removes `nroff/troff`, `tbl`, and `eqn` constructs  
`eqn(1)` — format mathematical text for `troff`  
`expand(1)` — expand tabs to spaces, and vice versa  
`fmt(1)` — invokes a simple text formatter  
`fold(1)` — folds long lines for finite-width output device  
`grap(1)` — invokes a `pic` preprocessor for drawing graphs  
`iw2(1)` — prepares data to be printed on the Apple ImageWriter II printer  
`m4(1)` — processes macros for C and other languages  
`neqn(1)` — formats mathematical text for `nroff`  
`pic(1)` — preprocesses `troff` files that contain drawings  
`pr(1)` — formats text for a print device  
`rev(1)` — reverses characters within each line of text  
`sort(1)` — sorts or merges files  
`ssp(1)` — produces single spaced output  
`tabs(1)` — sets the tab stops on a terminal  
`tbl(1)` — table formatter for `nroff` or `troff`  
`uniq(1)` — reports repeated lines in a file

### program debugging

`adb(1)` — debugs executable programs  
`ctrace(1)` — debugs a C program  
`dbx(1)` — debugs and executes programs  
`sdb(1)` — symbolic debugger

### program source

`admin(1)` — creates and administers SCCS files  
`cb(1)` — improves spacing and indentation of C source files  
`cdc(1)` — changes the delta commentary of an SCCS delta  
`ci(1)` — checks in RCS revisions  
`co(1)` — checks out RCS revisions  
`comb(1)` — combines SCCS deltas  
`get(1)` — gets a version of an SCCS file  
`help(1)` — provides help information about SCCS commands and messages  
`ident(1)` — displays RCS keywords and their values  
`indent(1)` — indents and formats C program source  
`lint(1)` — invokes a C program checker  
`make(1)` — maintains, updates, and regenerates groups of files  
`prs(1)` — displays information about an SCCS file  
`rsc(1)` — creates new RCS files or changes attributes of existing RCS files  
`rscdiff(1)` — compares RCS revisions  
`rscintro(1)` — introduces RCS commands  
`rscmerge(1)` — merges two versions of an RCS file  
`rlog(1)` — displays log messages and other information about RCS files  
`rmdel(1)` — removes a delta from an SCCS file



**sact(1)** — displays who has checked a Source Code Control System (SCCS) file out for editing  
**sccs(1)** — performs SCCS subsystem commands  
**sccsdiff(1)** — compares two versions of an SCCS file  
**ucbdiff3(1)** — reports the differences between three files  
**ucbdiff(1)** — reports differences between two files or directories  
**unget(1)** — undoes a previous get of an SCCS file  
**val(1)** — validate SCCS file  
**what(1)** — reports identification information for a file  
**sccstorcs(1M)** — builds an RCS file from an SCCS file  
**rscfile(4)** — format of an RCS file  
**sccsfile(4)** — format of an SCCS file  
**programming, general development tools**  
**adb(1)** — debugs executable programs  
**admin(1)** — creates and administers SCCS files  
**ar(1)** — maintains a library of files in an archive  
**as(1)** — assembles files by translating assembler mnemonics to object code  
**bs(1)** — compiles and interprets `bs` programs  
**cdc(1)** — changes the delta commentary of an SCCS delta  
**ci(1)** — checks in RCS revisions  
**co(1)** — checks out RCS revisions  
**comb(1)** — combines SCCS deltas  
**conv(1)** — swaps bytes in COFF files  
**dbx(1)** — debugs and executes programs  
**delta(1)** — makes a delta (change) to an SCCS file  
**dis(1)** — produces an assembly language listing for a specified file  
**dump(1)** — stores (saves) selected parts of an object file  
**get(1)** — gets a version of an SCCS file  
**help(1)** — provides help information about SCCS commands and messages  
**hex(1)** — converts an object file to Motorola S-record format  
**ld(1)** — invokes the link editor for common object files  
**lex(1)** — generates programs for simple lexical tasks  
**lorder(1)** — finds the ordering relation for an object library  
**make(1)** — maintains, updates, and regenerates groups of files  
**mkshlib(1)** — creates a shared library  
**nm(1)** — displays the symbol table of a common object file  
**od(1)** — converts binary data to a displayable form in octal, decimal, hexadecimal, or ASCII  
**prof(1)** — displays profile data  
**prs(1)** — displays information about an SCCS file  
**rscs(1)** — creates new RCS files or changes attributes of existing RCS files  
**rscsdiff(1)** — compares RCS revisions

rcsintro(1) — introduces RCS commands  
 rcsmerge(1) — merges two versions of an RCS file  
 rcvhex(1) — receives and converts Motorola S-records from a port to a file  
 regcmp(1) — compiles regular expressions with a file  
 rlog(1) — displays log messages and other information about RCS files  
 rmdel(1) — removes a delta from an SCCS file  
 rpcgen(1) — generates C source code from a remote procedure call (RPC) source file  
 sact(1) — displays who has checked a Source Code Control System (SCCS) file out for editing  
 sccs(1) — performs SCCS subsystem commands  
 sccsdiff(1) — compares two versions of an SCCS file  
 sdb(1) — symbolic debugger  
 size(1) — displays section sizes of common object files  
 strings(1) — finds the printable strings in an object or other binary file  
 strip(1) — strips symbol and line number information from an object file  
 tsort(1) — sorts lines in a file topologically  
 unget(1) — undoes a previous get of an SCCS file  
 val(1) — validate SCCS file  
 vc(1) — manipulates version control information inside a data stream  
 what(1) — reports identification information for a file  
 yacc(1) — compiles compilers (yet another compiler-compiler)  
 sccstorcs(1M) — builds an RCS file from an SCCS file

**programming, Macintosh development tools**

derez(1) — decompiles a resource file  
 rez(1) — compiles Macintosh resource files from source code

**programming, shell**

basename(1) — get part of a pathname  
 echo(1) — echoes its arguments  
 expr(1) — evaluates arguments as an expression  
 getopt(1) — parses command options  
 line(1) — reads one line from the standard input  
 query(1) — queries the user for input  
 rev(1) — reverses characters within each line of text  
 test(1) — evaluates conditions  
 tput(1) — queries terminfo database  
 true(1) — provides truth values  
 macquery(1M) — posts a Macintosh alert box to query the user

**programming, using C**

cb(1) — improves spacing and indentation of C source files  
 cc(1) — invokes the C compiler  
 cflow(1) — generates a C flowgraph  
 cpp(1) — invokes the C language preprocessor

ctags(1) — maintains a tags file for a C program  
 ctrace(1) — debugs a C program  
 cxref(1) — generates a C program cross-reference  
 ident(1) — displays RCS keywords and their values  
 indent(1) — indents and formats C program source  
 lint(1) — invokes a C program checker  
 mkstr(1) — creates an error message file by massaging C source programs  
 xstr(1) — reports strings from C programs to implement shared strings

**programming, using Fortran**

asa(1) — interprets ASA carriage control characters  
 efl(1) — invokes the Extended Fortran Language  
 f77(1) — invokes the Fortran 77 compiler  
 fpr(1) — filters the output of Fortran programs for line printing  
 fsplit(1) — splits f77 or efl files

**programs, delaying running of**

sleep(1) — suspends the system for a specified interval of time

**programs, establishing times for running**

at(1) — run commands at a later time  
 crontab(1) — aids in the use of the cron process scheduling program  
 cron(1M) — runs the clock daemon

**programs, installation utilities**

cpset(1M) — installs files in specified directories  
 finstall(1M) — installs A/UX software from specially prepared floppy disks  
 install(1M) — places files in specified directories

**programs, run-time environment settings**

env(1) — sets the environment for command execution  
 nice(1) — executes a command at low priority  
 nohup(1) — runs a command so that it can continue to run even after your session has ended  
 shl(1) — manages the layering of multiple shells  
 yes(1) — generates y entries in response to requests for input  
 chroot(1M) — changes the root directory for a command

**programs, running Macintosh applications**

launch(1) — runs a Macintosh binary application in A/UX

**progress bar**

StartMonitor(1M) — displays a progress bar during the A/UX boot sequence

**queues**

lpq(1) — queries the print spooler for progress information  
 mailq(1M) — lists the contents of the mail queue  
 msgctl(2) — message control operations  
 msgget(2) — gets message queue

msgop(2) — message operations  
 insque(3N) — insert/remove element from a queue

**quiz**  
 quiz(6) — gives associative knowledge tests on various subjects

**rain**  
 rain(6) — animates raindrops

**random numbers**  
 drand48(3C) — generate uniformly distributed pseudo-random numbers  
 rand(3C) — call a simple random-number generator  
 rand(3F) — provide a Fortran uniform random-number generator

**random text generation**  
 fortune(6) — plays the game of fortune telling

**RCS**  
 ci(1) — checks in RCS revisions  
 co(1) — checks out RCS revisions  
 ident(1) — displays RCS keywords and their values  
 merge(1) — merges three files into one  
 rcs(1) — creates new RCS files or changes attributes of existing RCS files  
 rcsdiff(1) — compares RCS revisions  
 rcsintro(1) — introduces RCS commands  
 rcsmerge(1) — merges two versions of an RCS file  
 rlog(1) — displays log messages and other information about RCS files  
 ucbsdifff3(1) — reports the differences between three files  
 ucbsdifff(1) — reports differences between two files or directories  
 sccstorcs(1M) — builds an RCS file from an SCCS file  
 rcsfile(4) — format of an RCS file

**reading files**  
 cat(1) — catenates and displays the contents of files  
 head(1) — displays the first few lines of a file  
 line(1) — reads one line from the standard input  
 more(1) — show the contents of a file in display-size chunks  
 pg(1) — shows the contents of a file in display-size chunks  
 soelim(1) — eliminates the source commands from nroff input  
 tail(1) — displays the last part of a file  
 read(2) — reads from a file  
 fread(3S) — produce binary input/output  
 getc(3S) — get character or word from a stream

**real group IDs**  
 getuid(2) — get real and effective user IDs and group IDs  
 setregid(2) — sets real and effective group ID

**real numbers**  
 aint(3F) — Fortran integer part intrinsic function

### real user IDs

- getuid(2) — get real and effective user IDs and group IDs
- setreuid(2) — set real and effective user ID
- setsid(2P) — create session and set process group ID

### records, processing

- colrm(1) — removes columns from a file
- comm(1) — selects or rejects lines common to two sorted files
- cut(1) — cuts out selected fields of each line of a file
- join(1) — combines (joins) two relational files
- paste(1) — merges lines of several files or subsequent lines of one file
- sort(1) — sorts or merges files
- uniq(1) — reports repeated lines in a file

### redirection of output or input

- cat(1) — catenates and displays the contents of files
- csh(1) — runs the C shell, a command interpreter with C-like syntax
- ksh(1) — runs the Korn shell, an enhanced command interpreter that is backward-compatible with the Bourne shell (sh)
- sh(1) — runs the Bourne shell
- tee(1) — transcribes data

### regular expressions

- grep(1) — search a file for a specific pattern
- regcmp(1) — compiles regular expressions with a file
- regcmp(3X) — compile and execute a regular expression
- regexp(5) — regular expression compile and match routines

### relational joining of files

- join(1) — combines (joins) two relational files

### relocation

- reloc(4) — relocation information for a common object file

### remainders

- floor(3M) — floor, ceiling, remainder, absolute value functions
- mod(3F) — provide Fortran remaindering intrinsic functions

### reminder service

- calendar(1) — provides a reminder service
- leave(1) — reminds you when you have to leave

### Remote Procedure Call

- rup(1N) — displays the status of machines on the local network (RPC version)
- rusers(1N) — produces a login list for local machines (RPC version)
- nfsstat(1M) — displays Network File System (NFS) statistics
- portmap(1M) — converts RPC program numbers into DARPA protocol port numbers
- rpcinfo(1M) — reports RPC information
- rusersd(1M) — rusers invokes a server for users
- spray(1M) — sprays packets

sprayd(1M) — returns information for the spray command  
 getrpcent(3N) — get RPC entry  
 getrpcport(3N) — gets a Remote Procedure Call (RPC) port number  
 rpc(3N) — library routines for remote procedure calls  
 spray(3N) — scatters data in order to check the network  
 rpc(4) — RPC program number database

**remote systems**

atprint(1) — transfers data to a printer by using AppleTalk protocols  
 ct(1C) — runs login on a dial-up line  
 cu(1C) — establishes an interactive connection with another system  
 rcp(1C) — copies files between two systems  
 rdist(1) — distributes remote files  
 remsh(1N) — invokes to a shell on a remote system  
 rlogin(1N) — logs in to a remote system  
 rup(1N) — displays the status of machines on the local network (RPC version)  
 rusers(1N) — produces a login list for local machines (RPC version)  
 tip(1C) — establishes a connection to a remote system  
 uucp(1C) — copies files from one system to another system  
 uuname(1C) — displays the names of systems to which uucp and cu can connect  
 uusend(1C) — sends a file to a remote host  
 remlogin(1M) — runs on a remote system to log you in  
 remshd(1M) — invokes the remote shell server  
 restore(1M) — retrieve files from within a dump.bsd archive into an existing file system  
 rexecd(1M) — server for remote executions  
 rlogind(1M) — server for remote logins  
 rusersd(1M) — rusers invokes a server for users  
 showmount(1M) — shows all remote mounts  
 talkd(1M) — invokes the remote user communication server  
 uuxqt(1M) — handles requests from remote systems to run commands  
 mount(3N) — keeps track of remotely mounted file systems  
 rcmd(3N) — routines for returning a stream to a remote command  
 rexec(3N) — returns a stream to a remote command  
 rusers(3N) — return information about users on remote machines  
 rpc(3N) — library routines for remote procedure calls  
 rstat(3N) — get performance data from remote kernel  
 rtime(3) — gets remote time  
 rwall(3N) — writes to specified remote machines  
 sm\_inter(3N) — status monitor protocol  
 xdr(3N) — provide library routines for external data representation  
 phones(4) — remote host telephone number database  
 remote(4) — remote host description file

rhosts(4N) — trusted hosts file format  
rmtab(4) — remotely mounted file system table

#### removing

cancel(1) — cancels print requests spooled through the lp command  
colrm(1) — removes columns from a file  
cut(1) — cuts out selected fields of each line of a file  
deroff(1) — removes nroff/troff, tbl, and eqn constructs  
ipcrm(1) — removes interprocess communications facilities  
kill(1) — terminates a process  
lprm(1) — removes jobs from the line printer spooling queue for a  
    Berkeley file system (4.2)  
rm(1) — remove files or directories  
rmdel(1) — removes a delta from an SCCS file  
dev\_kill(1M) — removes device files from a directory  
killall(1M) — kills all active processes  
flock(2) — applies or removes an advisory lock on an open file  
rmdir(2) — remove a directory file  
unlink(2) — remove directory entry  
unmount(2) — remove a file system  
insque(3N) — insert/remove element from a queue

#### repairing file systems

clri(1M) — clears inodes  
fsck(1M) — checks file-system consistency and interactively repairs the  
    file system  
fsdb(1M) — debugs the file system  
ncheck(1M) — locates the filename associated with an i-number  
esch(8) — validates and repairs file systems from the A/UX Startup shell

#### repeated lines in text

uniq(1) — reports repeated lines in a file

#### resources, Macintosh

derez(1) — decompiles a resource file  
fcnvt(1) — converts a file in one storage format to a different storage  
    format  
rez(1) — compiles Macintosh resource files from source code  
setfile(1) — sets attributes for Macintosh files, such as file type and  
    creator

#### reversing characters within lines

rev(1) — reverses characters within each line of text

#### Revision Control System

ci(1) — checks in RCS revisions  
co(1) — checks out RCS revisions  
ident(1) — displays RCS keywords and their values  
merge(1) — merges three files into one  
rcs(1) — creates new RCS files or changes attributes of existing RCS files

rcsdiff(1) — compares RCS revisions  
 rcsintro(1) — introduces RCS commands  
 rcsmerge(1) — merges two versions of an RCS file  
 rlog(1) — displays log messages and other information about RCS files  
 ucbsdifff3(1) — reports the differences between three files  
 ucbsdifff(1) — reports differences between two files or directories  
 sccstores(1M) — builds an RCS file from an SCCS file  
 rcsfile(4) — format of an RCS file

**robots**

autorobots(6) — plays the game of autorobots  
 chase(6) — plays the game of chase  
 robots(6) — plays the game of robots

**root directory**

chroot(1M) — changes the root directory for a command  
 chroot(2) — changes the root directory

**rounding**

round(3F) — provide Fortran nearest integer functions

**routing tables**

route(1M) — manipulates the routing tables  
 routed(1M) — invokes the network routing daemon

**RPC**

rup(1N) — displays the status of machines on the local network (RPC version)  
 rusers(1N) — produces a login list for local machines (RPC version)  
 nfsstat(1M) — displays Network File System (NFS) statistics  
 portmap(1M) — converts RPC program numbers into DARPA protocol port numbers  
 rpcinfo(1M) — reports RPC information  
 rusersd(1M) — rusers invokes a server for users  
 spray(1M) — sprays packets  
 sprayd(1M) — returns information for the spray command  
 getrpcent(3N) — get RPC entry  
 getrpcport(3N) — gets a Remote Procedure Call (RPC) port number  
 rpc(3N) — library routines for remote procedure calls  
 spray(3N) — scatters data in order to check the network  
 rpc(4) — RPC program number database

**run queue**

lav(1) — displays load average statistics

**running Macintosh applications from the command line**

launch(1) — runs a Macintosh binary application in A/UX

**SC40 Tape Backup**

tcb(1) — blocks data to 8K for direct input to /dev/rmt/tcx  
 tc(7) — tape device driver



## SCCS

`admin(1)` — creates and administers SCCS files  
`cdc(1)` — changes the delta commentary of an SCCS delta  
`comb(1)` — combines SCCS deltas  
`delta(1)` — makes a delta (change) to an SCCS file  
`get(1)` — gets a version of an SCCS file  
`help(1)` — provides help information about SCCS commands and messages  
`prs(1)` — displays information about an SCCS file  
`rmDEL(1)` — removes a delta from an SCCS file  
`sact(1)` — displays who has checked a Source Code Control System (SCCS) file out for editing  
`sccs(1)` — performs SCCS subsystem commands  
`sccsdiff(1)` — compares two versions of an SCCS file  
`unget(1)` — undoes a previous get of an SCCS file  
`val(1)` — validate SCCS file  
`vc(1)` — manipulates version control information inside a data stream  
`what(1)` — reports identification information for a file  
`sccstorcs(1M)` — builds an RCS file from an SCCS file  
`sccsfile(4)` — format of an SCCS file

## SCCS deltas

`cdc(1)` — changes the delta commentary of an SCCS delta  
`comb(1)` — combines SCCS deltas  
`delta(1)` — makes a delta (change) to an SCCS file  
`rmDEL(1)` — removes a delta from an SCCS file  
`sact(1)` — displays who has checked a Source Code Control System (SCCS) file out for editing

## screen management

`clear(1)` — clears the terminal screen  
`col(1)` — filters text containing printer control sequences for use at a display device  
`colcrt(1)` — filters `nroff` output for terminal previewing  
`ul(1)` — filters special underlining sequences imbedded in text for use at a display device  
`curses5.0(3X)` — provides BSD-style screen functions with optimal cursor motion  
`curses(3X)` — CRT screen handling and optimization package

## screen processing

`300(1)` — filter text containing printer control sequences for a DASI terminal  
`4014(1)` — filters text containing printer control sequences a page at a time  
`450(1)` — filters text containing printer control sequences for the DASI terminal

tc(1) — interprets troff output for use at a vintage display device

**searching**

grep(1) — search a file for a specific pattern  
 bsearch(3C) — performs a binary search on a sorted table  
 hsearch(3C) — manage hash search tables  
 lsearch(3C) — provide a linear search and update  
 tsearch(3C) — manage binary search trees

**searching text**

freq(1) — reports character frequencies in a file  
 grep(1) — search a file for a specific pattern  
 lookbib(1) — finds references in a bibliography  
 wc(1) — counts characters, words, and lines in a file

**security**

login(1) — signs you on a terminal session  
 logname(1) — gets the login name  
 newgrp(1) — logs you into a new group  
 passwd(1) — changes the login password  
 rlogin(1N) — logs in to a remote system  
 Login(1M) — logs you in to A/UX by using a graphical user interface  
 remlogin(1M) — runs on a remote system to log you in  
 rlogind(1M) — server for remote logins  
 getlogin(3C) — gets login name  
 logname(3X) — return login name of user  
 auxstartuprc(4) — authorization file that helps password-protect and  
   otherwise secure A/UX Startup  
 issue(4) — project identification file format  
 passwd(4) — password file  
 profile(4) — setting up an environment at login time

**segments**

brk(2) — change data segment space allocation  
 end(3C) — last locations in program  
 a.out(4) — common assembler and link editor output

**semaphores**

ipcrm(1) — removes interprocess communications facilities  
 ipcs(1) — reports interprocess communication facilities status  
 semctl(2) — semaphore control operations  
 semget(2) — get set of semaphores  
 semop(2) — performs semaphore operations

**serial communications**

ct(1C) — runs login on a dial-up line  
 cu(1C) — establishes an interactive connection with another system  
 kermit(1C) — invokes the Kermit file-transfer program  
 stty(1) — sets the modes for a terminal  
 tip(1C) — establishes a connection to a remote system

**tty(1)** — obtains the device filename for the terminal or CommandShell window where it is invoked  
**updater(1)** — updates files between two machines  
**uucp(1C)** — copies files from one system to another system  
**uuencode(1C)** — encode and decode a binary file  
**uusend(1C)** — sends a file to a remote host  
**uustat(1C)** — controls **uucp** jobs and provides status information  
**uuto(1C)** — provide an easy interface to the **uucp** command, using the public directories  
**uux(1C)** — runs a command on a remote system  
**getty(1M)** — set the initial communication modes, such as speed and line discipline, for the purpose of logging users in to A/UX through serial lines  
**setport(1M)** — sets the characteristics of a serial port  
**slattach(1M)** — attaches a serial line to a network interface  
**slattconf(1M)** — attaches a serial line to a network interface and configures the network interface  
**slip(1M)** — assigns a serial line to a network interface  
**gettydefs(4)** — speed and terminal settings used by **getty**  
**inittab(4)** — script for the **init** process  
**ttytype(4)** — database of terminal types by port  
**serial(7)** — provides the on-board serial ports

#### **Serial Line Internet Protocol**

**dslipuser(1M)** — displays the current state of the Compressed Serial Line/Internet Protocol (CSL/IP) database  
**mkslipuser(1M)** — creates or updates the Compressed Serial Line/Internet Protocol (CSL/IP) database  
**slip(1M)** — assigns a serial line to a network interface  
**slip.config(4)** — establishes the number of available Compressed Serial Line/Internet Protocol (CSL/IP) connections  
**slip.hosts(4)** — maps login names to Compressed Serial Line/Internet Protocol (CSL/IP) client host names  
**slip.user(4)** — database of available Compressed Serial Line/Internet Protocol (CSL/IP) connections

#### **servers**

**ypwhich(1)** — displays the host name of a system's Network Information Service (NIS) server  
**comsat(1M)** — invokes the server for **biff**  
**exportfs(1M)** — exports and unexports directories to Network File System (NFS) clients  
**fingerd(1M)** — handles requests from remote systems for user information from **finger**  
**ftpd(1M)** — provide Internet File Transfer Protocol (FTP) service  
**inetd(1M)** — starts Internet servers when needed

mountd(1M) — invokes the Network File System (NFS) mount-request server  
 named(1M) — provides Internet domain name service  
 portmap(1M) — converts RPC program numbers into DARPA protocol port numbers  
 remshd(1M) — invokes the remote shell server  
 rexecd(1M) — server for remote executions  
 rlogind(1M) — server for remote logins  
 rstatd(1M) — invokes a server for kernel statistics  
 rusersd(1M) — rusers invokes a server for users  
 rwalld(1M) — invokes the network rwall server  
 rwhod(1M) — invokes the system status server  
 sprayd(1M) — returns information for the spray command  
 talkd(1M) — invokes the remote user communication server  
 telnetd(1M) — supports the DARPA standard TELNET protocol  
 tftpd(1M) — responds to requests to use the DARPA Trivial File Transfer Protocol  
 yppasswd(1M) — handle requests to change a password served by the Network Information Service (NIS)  
 yppoll(1M) — reports the version of a Network Information Service (NIS) map that is on an NIS server  
 ypserv(1M) — provide Network Information Service (NIS) service  
 ypset(1M) — sets ypbind to a particular domain and Network Information Service (NIS) server  
 ypxfr(1M) — transfers a Network Information Service (NIS) map to the local system  
 servers(4) — Internet server database  
 slip.config(4) — establishes the number of available Compressed Serial Line/Internet Protocol (CSL/IP) connections

**services**

getservent(3N) — get a service entry  
 services(4N) — service name database

**session status**

logname(1) — gets the login name  
 printenv(1) — displays the value of variables set in the current environment  
 ps(1) — reports process status  
 pwd(1) — prints the name of the working directory  
 tty(1) — obtains the device filename for the terminal or CommandShell window where it is invoked  
 whoami(1) — prints effective current user ID

### **session, terminal**

CommandShell(1) — manages command-interpretation windows and moderates access to the A/UX console window  
chsh(1) — changes the default login shell  
csh(1) — runs the C shell, a command interpreter with C-like syntax  
ksh(1) — runs the Korn shell, an enhanced command interpreter that is backward-compatible with the Bourne shell (sh)  
rlogin(1N) — logs in to a remote system  
script(1) — starts a shell that records terminal input and output  
sh(1) — runs the Bourne shell  
shl(1) — manages the layering of multiple shells  
telnet(1C) — communicates with another host via the TELNET protocol  
Login(1M) — logs you in to A/UX by using a graphical user interface  
vt102(7) — provides protocols for VT102 terminals

### **session, user interface preferences**

CommandShell(1) — manages command-interpretation windows and moderates access to the A/UX console window  
chsh(1) — changes the default login shell  
Login(1M) — logs you in to A/UX by using a graphical user interface  
vt102(7) — provides protocols for VT102 terminals

### **shared memory**

mkshlib(1) — creates a shared library  
shmctl(2) — shared memory control operations  
shmget(2) — get shared memory segment  
shmop(2) — shared memory operations

### **shared strings**

xstr(1) — reports strings from C programs to implement shared strings

### **shell programming, boolean operations**

test(1) — evaluates conditions  
true(1) — provides truth values

### **shell programming, expression evaluation**

basename(1) — get part of a pathname  
echo(1) — echoes its arguments  
expr(1) — evaluates arguments as an expression  
getopt(1) — parses command options  
rev(1) — reverses characters within each line of text

### **shell programming, input and output operations**

line(1) — reads one line from the standard input  
query(1) — queries the user for input  
tput(1) — queries terminfo database  
macquery(1M) — posts a Macintosh alert box to query the user  
vt102(7) — provides protocols for VT102 terminals

## shells

chsh(1) — changes the default login shell  
csh(1) — runs the C shell, a command interpreter with C-like syntax  
ksh(1) — runs the Korn shell, an enhanced command interpreter that is backward-compatible with the Bourne shell (sh)  
remsh(1N) — invokes to a shell on a remote system  
sh(1) — runs the Bourne shell  
shl(1) — manages the layering of multiple shells  
remshd(1M) — invokes the remote shell server  
getusershell(3) — generate authenticated pathnames corresponding to executable shell programs  
shells(4) — shell pathnames file  
StartupShell(8) — interprets command lines such as those used to boot A/UX and check file systems within the A/UX Startup application

## shutdown

powerdown(1M) — turns off power to the computer  
shutdown(1M) — terminates processes that support multi-user mode and enters single-user mode

## sign, numeric

sign(3F) — returns Fortran transfer-of-sign intrinsic functions

## signal stack

sigstack(2) — set or get signal stack context

## signals

ipcrm(1) — removes interprocess communications facilities  
kill(1) — terminates a process  
kill(2) — sends a signal to a process or a group of processes  
pause(2) — suspends a process until signal  
sigblock(2) — block signals  
sigpause(2) — release blocked signals and wait for interrupt  
sigpending(2P) — examine pending signals  
sigsetmask(2) — set current signal mask  
sigstack(2) — set or get signal stack context  
sigvec(2) — optional BSD-compatible software signal facilities  
killpg(3N) — sends signal to a process group  
set42sig(3) — sets the Berkeley Software Distribution (BSD) 4.2 signal interface  
sigaction(3P) — examine or change signal action  
signal(3) — specifies what to do upon receipt of a signal  
signal(3F) — specifies Fortran action on receipt of a system signal  
sigprocmask(3P) — examines and changes blocked signals  
sigsetops(3P) — manipulate signal sets  
sigsuspend(3P) — waits for a signal  
ssignal(3C) — produce software signals

## **sine**

`sin(3F)` — provide Fortran sine intrinsic functions  
`sinh(3F)` — provide Fortran hyperbolic sine intrinsic function  
`sinh(3M)` — provide hyperbolic functions  
`trig(3M)` — provide trigonometric functions

## **single-spaced text**

`ssp(1)` — produces single spaced output

## **SL/IP**

`dslipuser(1M)` — displays the current state of the Compressed Serial Line/Internet Protocol (CSL/IP) database  
`mkslipuser(1M)` — creates or updates the Compressed Serial Line/Internet Protocol (CSL/IP) database  
`slip(1M)` — assigns a serial line to a network interface  
`slip.config(4)` — establishes the number of available Compressed Serial Line/Internet Protocol (CSL/IP) connections  
`slip.hosts(4)` — maps login names to Compressed Serial Line/Internet Protocol (CSL/IP) client host names  
`slip.user(4)` — database of available Compressed Serial Line/Internet Protocol (CSL/IP) connections

## **slides**

`mvt(1)` — typeset documents that contain `troff` and `mm` or `mv` macro-formatting requests  
`mv(5)` — a `troff` macro package for typesetting viewgraphs and slides

## **SNOBOL**

`sno(1)` — runs the SNOBOL interpreter

## **SNOBOL programming**

`sno(1)` — runs the SNOBOL interpreter

## **".so" macro**

`soelim(1)` — eliminates the source commands from `nroff` input

## **sockets**

`accept(2N)` — accept a connection on a socket  
`bind(2N)` — bind a name to a socket  
`connect(2N)` — initiates a connection on a socket  
`getpeername(2N)` — gets the name of a connected peer  
`getsockname(2N)` — gets a socket name  
`getsockopt(2N)` — get and set options on sockets  
`listen(2N)` — listens for connections on a socket  
`recv(2N)` — receive a message from a socket  
`send(2N)` — send a message from a socket  
`shutdown(2N)` — shut down part of a full-duplex connection  
`socket(2N)` — create an endpoint for communication  
`socketpair(2)` — creates a pair of connected sockets  
`appletalk(7)` — interfaces with the AppleTalk protocols

### software loopback

lo(5) — software loopback network interface

### sorting

lorder(1) — finds the ordering relation for an object library

sort(1) — sorts or merges files

sortbib(1) — sorts bibliographic database

tsort(1) — sorts lines in a file topologically

qsort(3C) — performs a quicker sort

### Source Code Control System

admin(1) — creates and administers SCCS files

cdc(1) — changes the delta commentary of an SCCS delta

comb(1) — combines SCCS deltas

delta(1) — makes a delta (change) to an SCCS file

get(1) — gets a version of an SCCS file

help(1) — provides help information about SCCS commands and messages

prs(1) — displays information about an SCCS file

rmdel(1) — removes a delta from an SCCS file

sact(1) — displays who has checked a Source Code Control System (SCCS) file out for editing

sccs(1) — performs SCCS subsystem commands

sccsdiff(1) — compares two versions of an SCCS file

unget(1) — undoes a previous get of an SCCS file

val(1) — validate SCCS file

what(1) — reports identification information for a file

sccstorcs(1M) — builds an RCS file from an SCCS file

sccsfile(4) — format of an SCCS file

### source text management

admin(1) — creates and administers SCCS files

cb(1) — improves spacing and indentation of C source files

cdc(1) — changes the delta commentary of an SCCS delta

ci(1) — checks in RCS revisions

co(1) — checks out RCS revisions

comb(1) — combines SCCS deltas

get(1) — gets a version of an SCCS file

help(1) — provides help information about SCCS commands and messages

ident(1) — displays RCS keywords and their values

indent(1) — indents and formats C program source

lint(1) — invokes a C program checker

make(1) — maintains, updates, and regenerates groups of files

prs(1) — displays information about an SCCS file



`rccs(1)` — creates new RCS files or changes attributes of existing RCS files  
`rccsdiff(1)` — compares RCS revisions  
`rccsintro(1)` — introduces RCS commands  
`rccsmerge(1)` — merges two versions of an RCS file  
`rlog(1)` — displays log messages and other information about RCS files  
`rmddel(1)` — removes a delta from an SCCS file  
`sact(1)` — displays who has checked a Source Code Control System (SCCS) file out for editing  
`sccs(1)` — performs SCCS subsystem commands  
`sccsdiff(1)` — compares two versions of an SCCS file  
`ucbdiff3(1)` — reports the differences between three files  
`ucbdiff(1)` — reports differences between two files or directories  
`unget(1)` — undoes a previous get of an SCCS file  
`val(1)` — validate SCCS file  
`what(1)` — reports identification information for a file  
`sccstorcs(1M)` — builds an RCS file from an SCCS file  
`rccsfile(4)` — format of an RCS file  
`sccsfile(4)` — format of an SCCS file

#### **spaces (in text)**

`expand(1)` — expand tabs to spaces, and vice versa

#### **spelling**

`spell(1)` — find spelling errors

#### **spline curves**

`spline(1G)` — interpolates a smooth curve

#### **spooler management**

`cancel(1)` — cancels print requests spooled through the `lp` command

`enable(1)` — enable or disable LP printers

`lpq(1)` — queries the print spooler for progress information

`lpr(1)` — spools print requests to printers

`lprm(1)` — removes jobs from the line printer spooling queue for a Berkeley file system (4.2)

`lpstat(1)` — prints `lp` status information

`uustat(1C)` — controls `uucp` jobs and provides status information

`accept(1M)` — allows `lp` requests

`lpadmin(1M)` — configures the `lp` spooling system

`lpc(1M)` — controls the operation of the line printer

`lpd(1M)` — supports the Berkeley print spooler . " 4.2 line-printer daemon

`lpsched(1M)` — start or stop the `lp` request scheduler and move requests

`lptest(1M)` — generates a line-printer ripple pattern

`reject(1M)` — prevents LP requests

`transcript(1M)` — filter data for the POSTSCRIPT printers

`uucleanup(1M)` — removes old files from the `uucp` spool directory

## spraying

- spray(1M) — sprays packets
- sprayd(1M) — returns information for the spray command
- spray(3N) — scatters data in order to check the network

## square root

- exp(3F) — Fortran exponential intrinsic function
- exp(3M) — provide exponential, logarithm, power, and square root functions
- sqrt(3F) — provide Fortran square root intrinsic functions

## standard units

- units(1) — rescales quantities according to a the unit of measure specified

## Star Trek

- trek(6) — plays the game of trek

## startup

- login(1) — signs you on a terminal session
- newgrp(1) — logs you into a new group
- Login(1M) — logs you in to A/UX by using a graphical user interface
- StartMonitor(1M) — displays a progress bar during the A/UX boot sequence
- brc(1M) — execute system initialization shell scripts
- init(1M) — spawn general processes
- killall(1M) — kills all active processes
- powerdown(1M) — turns off power to the computer
- reboot(1M) — reboots the operating system
- shutdown(1M) — terminates processes that support multi-user mode and enters single-user mode
- startmsg(1M) — sends messages to StartMonitor, which displays a progress bar during the A/UX boot process
- startup(1M) — runs startup programs at boot time
- reboot(2) — reboot system or halt processor
- auxstartuprc(4) — authorization file that helps password-protect and otherwise secure A/UX Startup
- inittab(4) — script for the init process
- StartupShell(8) — interprets command lines such as those used to boot A/UX and check file systems within the A/UX Startup application
- intro(8) — introduces commands executed from the A/UX Startup shell

## statistics

- lav(1) — displays load average statistics
- ff(1M) — lists file names and statistics for a System V file system
- ncstats(1M) — displays kernel name cache statistics
- nfstat(1M) — displays Network File System (NFS) statistics
- rstatd(1M) — invokes a server for kernel statistics

statfs(2) — gets file-system statistics  
ustat(2) — gets file system statistics

#### **status**

hostname(1N) — sets or displays the name of the current host system  
last(1) — displays login and logout times for each user of the system  
lpq(1) — queries the print spooler for progress information  
lpstat(1) — prints lp status information  
netstat(1N) — displays network status information  
ps(1) — reports process status  
ruptime(1N) — displays the host status of local machines  
tty(1) — obtains the device filename for the terminal or CommandShell  
    window where it is invoked  
uptime(1) — reports how long system has been up  
users(1) — reports a list of the users who are logged on to the system  
w(1) — displays a summary of the current system activity  
who(1) — reports users who are currently logged in to the system  
whoami(1) — prints effective current user ID  
mount(1M) — mount and unmount file systems  
pstat(1M) — prints system facts  
rwhod(1M) — invokes the system status server  
showmount(1M) — shows all remote mounts  
whodo(1M) — informs you of the current system activity  
rstat(3N) — get performance data from remote kernel  
rttime(3) — gets remote time

#### **status, file system**

df(1) — reports the used and unused storage capacity for a file system  
du(1) — summarizes disk usage

#### **status, session**

logname(1) — gets the login name  
printenv(1) — displays the value of variables set in the current  
    environment  
ps(1) — reports process status  
pwd(1) — prints the name of the working directory  
tty(1) — obtains the device filename for the terminal or CommandShell  
    window where it is invoked  
whoami(1) — prints effective current user ID

#### **status, system**

finger(1) — displays information about the users on a system  
groups(1) — displays group memberships  
hostid(1N) — sets or displays the identifier of the current host system  
hostname(1N) — sets or displays the name of the current host system  
id(1) — displays user and group IDs and names  
last(1) — displays login and logout times for each user of the system  
machid(1) — provide truth values about processor type

pagesize(1) — displays the system page size  
uname(1) — displays identification information about the current system  
uptime(1) — reports how long system has been up  
users(1) — reports a list of the users who are logged on to the system  
w(1) — displays a summary of the current system activity  
who(1) — reports users who are currently logged in to the system  
whodo(1M) — informs you of the current system activity

#### streams (data)

line\_sane(1M) — pushes streams line disciplines  
fclose(3S) — close or flush a stream  
ferror(3S) — stream status inquiries  
fopen(3S) — open a stream  
fread(3S) — produce binary input/output  
fseek(3S) — reposition a file pointer in a stream  
getc(3S) — get character or word from a stream  
gets(3S) — get a string from a stream  
line\_push(3) — routine used to push streams line disciplines  
printf(3S) — format and output string and numeric data  
putc(3S) — put a character or word on a stream  
puts(3S) — put a string on a stream  
rcmd(3N) — routines for returning a stream to a remote command  
rexec(3N) — returns a stream to a remote command  
scanf(3S) — convert formatted input  
setbuf(3S) — assign buffering to a stream  
ungetc(3S) — pushes a character back into input stream  
streams(7) — provides an interface for character I/O

#### strings

basename(1) — get part of a pathname  
grep(1) — search a file for a specific pattern  
rev(1) — reverses characters within each line of text  
strings(1) — finds the printable strings in an object or other binary file  
xstr(1) — reports strings from C programs to implement shared strings  
atof(3C) — converts an ASCII string to floating-point number  
bstring(3) — bit and byte string operations  
ecvt(3C) — convert floating-point number to string  
gets(3S) — get a string from a stream  
index(3F) — return location of Fortran substring  
len(3F) — return length of Fortran string  
lge(3F) — string comparison intrinsic functions  
puts(3S) — put a string on a stream  
string(3C) — provide string operations  
strtod(3C) — converts a string to a double-precision number  
strtol(3C) — convert strings to integer

## subroutines

intro(3) — introduces the subroutines and libraries

## subtraction

dim(3F) — Fortran positive difference intrinsic functions

## superblock

sync(1) — updates the superblock

fsck(1M) — checks file-system consistency and interactively repairs the file system

mkfs(1M) — constructs a System V file system

sync(2) — update superblock

inode(4) — format of a System V inode

svfs(4) — System V system volume format

ufs(4) — UFS file-system format

## suspend execution

shl(1) — manages the layering of multiple shells

sleep(1) — suspends the system for a specified interval of time

sigpause(2) — release blocked signals and wait for interrupt

wait3(2N) — wait for child process to stop or terminate

wait(2) — wait for child process to stop or terminate

sigsuspend(3P) — waits for a signal

sleep(3C) — suspends execution for interval

tcdrain(3P) — provide line control functions

usleep(3) — suspend execution for interval

## SVFS

mkfs(1M) — constructs a System V file system

dir(4) — format of System V directories

inode(4) — format of a System V inode

svfs(4) — System V system volume format

## swapping (memory)

swap(1M) — adds disk blocks to or deletes them from the swap area

swab(3C) — swaps bytes

## symbol table

cc(1) — invokes the C compiler

ld(1) — invokes the link editor for common object files

nm(1) — displays the symbol table of a common object file

strip(1) — strips symbol and line number information from an object file

ldgetname(3X) — retrieves symbol name for object file symbol table entry

ldtbindex(3X) — compute index of a symbol table entry of a common object file

ldtbread(3X) — read an indexed symbol table entry of a common object file

ldtbseek(3X) — seek to the symbol table of a common object file

nlist(3C) — gets entries from name list

syms(4) — common object file symbol table format

**synchronization**

select(2N) — synchronous I/O multiplexing

**system activity**

ipcs(1) — reports interprocess communication facilities status

lav(1) — displays load average statistics

ps(1) — reports process status

sag(1G) — generates a system activity graph

sar(1) — reports system activity

sysline(1) — displays the system status on the status line of a terminal

timex(1) — reports the elapsed, user, and system time during the execution of a command

w(1) — displays a summary of the current system activity

acct(1M) — present an overview of accounting commands

acctcms(1M) — summarizes commands from per-process accounting records

acctcom(1M) — searches and formats process accounting files

acctcon(1M) — invoke connect-time accounting

acctmerg(1M) — merges or adds accounting files

acctprc(1M) — provide process accounting

acctsh(1M) — provide shell procedures for accounting

diskusg(1M) — generates disk accounting data by user ID

fwtmp(1M) — manipulate connect accounting records

pac(1M) — gathers printer/plotter accounting information

runacct(1M) — runs daily accounting

sadc(1M) — report system activity

whodo(1M) — informs you of the current system activity

**system administration, backing up file systems**

bcopy(1M) — copies blocks interactively

dcopy(1M) — copies System V File System-style file systems for optimal access time

dump.bsd(1M) — create a dump.bsd archive by making copies of files from a given file system

escher(1M) — helps you with autorecovery administration

eu(1M) — updates autorecovery files

eupdate(1M) — updates important files for autorecovery purposes

finc(1M) — generates a fast incremental backup for System V file systems

frec(1M) — recovers files from a backup tape

restore(1M) — retrieve files from within a dump.bsd archive into an existing file system

volcopy(1M) — copy file systems with label checking

### system administration, file systems

`df(1)` — reports the used and unused storage capacity for a file system  
`du(1)` — summarizes disk usage  
`fstyp(1)` — reports the file-system type  
`sync(1)` — updates the superblock  
`clri(1M)` — clears inodes  
`devnm(1M)` — displays the current device name  
`ff(1M)` — lists file names and statistics for a System V file system  
`fsck(1M)` — checks file-system consistency and interactively repairs the file system  
`fsdb(1M)` — debugs the file system  
`fsentry(1M)` — creates an entry in the file-system table  
`fsirand(1M)` — installs random inode generation numbers  
`fsstat(1M)` — reports the state of a file system  
`fuser(1M)` — identifies processes using a file or file structure  
`mkfs1b(1M)` — constructs a file system with 512-byte blocks  
`mkfs(1M)` — constructs a System V file system  
`mklost+found(1M)` — makes a directory named `lost+found` to be used by `fsck`  
`mount(1M)` — mount and unmount file systems  
`ncheck(1M)` — locates the filename associated with an i-number  
`newfs(1M)` — makes a Berkeley 4.2 (UFS) file system  
`tunefs(1M)` — tunes a Berkeley 4.2 (UFS) file system

### system administration, general

`checkinstall(1)` — checks the installation of boards  
`tset(1)` — set or reset the terminal to a sensible state  
`badblk(1M)` — sets or updates bad block information  
`chgnod(1M)` — changes the current A/UX system node name  
`diskformat(1M)` — formats a disk through a driver-dependent format operation  
`dp(1M)` — performs disk partitioning  
`getty(1M)` — set the initial communication modes, such as speed and line discipline, for the purpose of logging users in to A/UX through serial lines  
`line_sane(1M)` — pushes streams line disciplines  
`pname(1M)` — associates named partitions with device files  
`setport(1M)` — sets the characteristics of a serial port  
`settimezone(1M)` — sets the local time zone  
`swap(1M)` — adds disk blocks to or deletes them from the swap area  
`tic(1M)` — compiles (translates) terminfo files  
`tty_add(1M)` — modify the `/etc/inittab` file in terms of enabling serial ports for use as login terminals  
`tzdump(1M)` — displays the date and time for one or more time zones  
`tzic(1M)` — compiles time-zone information files that are required to set

the local time-zone

**system administration, installing software**

- cpset(1M) — installs files in specified directories
- finstall(1M) — installs A/UX software from specially prepared floppy disks
- install(1M) — places files in specified directories

**system administration, kernel**

- autoconfig(1M) — creates an up-to-date kernel
- kconfig(1M) — tunes kernel parameters for work-load optimization
- module\_dump(1M) — queries kernel files for configuration information
- newconfig(1M) — generates an up-to-date kernel
- newunix(1M) — manipulates the files that determine the configuration of a new kernel

**system administration, mail**

- rmail(1) — handles remote mail received via UUCP
- comsat(1M) — invokes the server for biff
- mailq(1M) — lists the contents of the mail queue
- newaliases(1M) — rebuilds the database for the mail aliases file
- sendmail(1M) — sends mail

**system administration, NFS file systems**

- domainname(1) — sets or displays the name of the Network Information Service (NIS) domain
- automount(1M) — mounts Network File System (NFS) when needed
- exportfs(1M) — exports and unexports directories to Network File System (NFS) clients
- lockd(1M) — handle local and remote lock requests
- mountd(1M) — invokes the Network File System (NFS) mount-request server
- nfsd(1M) — invoke the NFS daemons
- nfsstat(1M) — displays Network File System (NFS) statistics
- rpcinfo(1M) — reports RPC information
- showmount(1M) — shows all remote mounts
- spray(1M) — sprays packets
- sprayd(1M) — returns information for the spray command
- statd(1M) — provide crash and recovery monitoring for network locking services

**system administration, spoolers**

- enable(1) — enable or disable LP printers
- lpstat(1) — prints lp status information
- accept(1M) — allows lp requests
- lpadmin(1M) — configures the lp spooling system
- lpc(1M) — controls the operation of the line printer
- lpd(1M) — supports the Berkeley print spooler .” 4.2 line-printer daemon
- lpsched(1M) — start or stop the lp request scheduler and move requests



lptest(1M) — generates a line-printer ripple pattern  
reject(1M) — prevents LP requests  
transcript(1M) — filter data for the POSTSCRIPT printers

#### **system administration, user accounts**

chfn(1) — changes the real-name field of your password file entry for use  
by finger  
chsh(1) — changes the default login shell  
finger(1) — displays information about the users on a system  
adduser(1M) — adds a user account  
fingerd(1M) — handles requests from remote systems for user  
information from finger  
pwck(1M) — check the password/group files  
vipw(1M) — edits the password file

#### **system administration, utilities for**

su(1) — substitutes user ID  
dev\_kill(1M) — removes device files from a directory  
mknod(1M) — builds a device file

#### **system administration, UUCP**

Uutry(1M) — contacts a remote system with debugging on  
uucheck(1M) — checks the uucp directories and files  
uucico(1M) — transfers files as specified by uucp work files  
uucleanup(1M) — removes old files from the uucp spool directory  
uucpd(1M) — handles the transfer of files by uucico over TCP/IP  
connections  
uudemon.admin(1M) — mails current uucp work status to the uucp  
administrator  
uudemon.cleanup(1M) — cleans up files in the uucp spool directory  
uudemon.hour(1M) — processes spooled uucp requests  
uudemon.poll(1M) — sets up polling for selected systems  
uusched(1M) — schedules uucp file transfers

#### **system calls**

intro(2) — introduces system calls and error numbers  
syscall(2) — indirect system call

#### **system configuration**

checkinstall(1) — checks the installation of boards  
tset(1) — set or reset the terminal to a sensible state  
adduser(1M) — adds a user account  
autoconfig(1M) — creates an up-to-date kernel  
badblk(1M) — sets or updates bad block information  
chgnod(1M) — changes the current A/UX system node name  
diskformat(1M) — formats a disk through a driver-dependent format  
operation  
dp(1M) — performs disk partitioning  
getty(1M) — set the initial communication modes, such as speed and

line discipline, for the purpose of logging users in to A/UX through serial lines  
 init(1M) — spawn general processes  
 kconfig(1M) — tunes kernel parameters for work-load optimization  
 line\_sane(1M) — pushes streams line disciplines  
 lpadmin(1M) — configures the lp spooling system  
 module\_dump(1M) — queries kernel files for configuration information  
 newconfig(1M) — generates an up-to-date kernel  
 newunix(1M) — manipulates the files that determine the configuration of a new kernel  
 pname(1M) — associates named partitions with device files  
 pstat(1M) — prints system facts  
 setport(1M) — sets the characteristics of a serial port  
 settimezone(1M) — sets the local time zone  
 slattconf(1M) — attaches a serial line to a network interface and configures the network interface  
 swap(1M) — adds disk blocks to or deletes them from the swap area  
 tic(1M) — compiles (translates) terminfo files  
 tty\_add(1M) — modify the /etc/inittab file in terms of enabling serial ports for use as login terminals  
 tzdump(1M) — displays the date and time for one or more time zones  
 tzic(1M) — compiles time-zone information files that are required to set the local time-zone  
 uvar(2) — returns system-specific configuration information  
 gettydefs(4) — speed and terminal settings used by getty  
 inittab(4) — script for the init process  
 master(4) — master kernel-configuration file format

**system crashes**

errdead(1M) — extracts error records from a crash dump  
 statd(1M) — provide crash and recovery monitoring for network locking services

**system folder, personalizing**

systemfolder(1) — create a personal System Folder

**system kernel, generation of**

autoconfig(1M) — creates an up-to-date kernel  
 kconfig(1M) — tunes kernel parameters for work-load optimization  
 module\_dump(1M) — queries kernel files for configuration information  
 newconfig(1M) — generates an up-to-date kernel  
 newunix(1M) — manipulates the files that determine the configuration of a new kernel

**system name**

hostname(1N) — sets or displays the name of the current host system  
 uname(1) — displays identification information about the current system  
 uname(2) — get name of current system

HOSTNAME(4) — host name and domain name database

### system startup and shutdown

StartMonitor(1M) — displays a progress bar during the A/UX boot sequence

brc(1M) — execute system initialization shell scripts

init(1M) — spawn general processes

killall(1M) — kills all active processes

powerdown(1M) — turns off power to the computer

reboot(1M) — reboots the operating system

shutdown(1M) — terminates processes that support multi-user mode and enters single-user mode

startmsg(1M) — sends messages to StartMonitor, which displays a progress bar during the A/UX boot process

startup(1M) — runs startup programs at boot time

### system status

finger(1) — displays information about the users on a system

groups(1) — displays group memberships

hostid(1N) — sets or displays the identifier of the current host system

hostname(1N) — sets or displays the name of the current host system

id(1) — displays user and group IDs and names

last(1) — displays login and logout times for each user of the system

lpq(1) — queries the print spooler for progress information

lpstat(1) — prints lp status information

machid(1) — provide truth values about processor type

netstat(1N) — displays network status information

pagesize(1) — displays the system page size

ps(1) — reports process status

ruptime(1N) — displays the host status of local machines

tty(1) — obtains the device filename for the terminal or CommandShell window where it is invoked

uname(1) — displays identification information about the current system

uptime(1) — reports how long system has been up

users(1) — reports a list of the users who are logged on to the system

w(1) — displays a summary of the current system activity

who(1) — reports users who are currently logged in to the system

whoami(1) — prints effective current user ID

errdead(1M) — extracts error records from a crash dump

errdemon(1M) — calls the error-logging daemon

errpt(1M) — processes a report of logged errors

errstop(1M) — terminates the error-logging daemon

exterr(1M) — turns on/off the reporting of extended errors

mount(1M) — mount and unmount file systems

ncstats(1M) — displays kernel name cache statistics

pstat(1M) — prints system facts

rwhod(1M) — invokes the system status server  
 showmount(1M) — shows all remote mounts  
 whodo(1M) — informs you of the current system activity

**system time**

date(1) — displays and sets the date  
 settimeofday(1M) — sets the local time zone  
 adjtime(2) — correct the system time  
 gettimeofday(2) — get/set date and time  
 time(2) — get time

**system variables**

kconfig(1M) — tunes kernel parameters for work-load optimization  
 sysconf(3P) — gets configurable system variables

**tables (in text)**

col(1) — filters text containing printer control sequences for use at a display device  
 deroff(1) — removes nroff/troff, tbl, and eqn constructs  
 tbl(1) — table formatter for nroff or troff

**tabs**

expand(1) — expand tabs to spaces, and vice versa  
 tabs(1) — sets the tab stops on a terminal

**tags**

ctags(1) — maintains a tags file for a C program

**tangent**

tan(3F) — Fortran tangent intrinsic function  
 tanh(3F) — Fortran hyperbolic tangent intrinsic function  
 trig(3M) — provide trigonometric functions

**tape (backup)**

cp(1) — copies files  
 cpio(1) — copies files to or from a cpio archive  
 pax(1) — copies files to or from an archive in an IEEE format  
 tar(1) — copies files to or from a tar archive  
 dump.bsd(1M) — create a dump.bsd archive by making copies of files from a given file system  
 finc(1M) — generates a fast incremental backup for System V file systems  
 frec(1M) — recovers files from a backup tape  
 restore(1M) — retrieve files from within a dump.bsd archive into an existing file system  
 dump.bsd(4) — format of a file-system dump  
 tc(7) — tape device driver

**tape drives**

mt(1) — manipulates magnetic tape media  
 tar(1) — copies files to or from a tar archive  
 tcb(1) — blocks data to 8K for direct input to /dev/rmt/tcx

tp(1) — copies files to or from a tp archive  
tar(4) — format of tar header  
mtio(7) — provides an interface library for magnetic tape devices  
tc(7) — tape device driver

## TCP

trpt(1M) — prints a readable description of TCP trace records

## TCP/IP, maintenance of

netstat(1N) — displays network status information  
nslookup(1) — interactively queries name servers  
arp(1M) — displays and modifies the address translation table  
dslipuser(1M) — displays the current state of the Compressed Serial  
Line/Internet Protocol (CSL/IP) database  
etheraddr(1M) — displays the Ethernet address of each Ethernet card  
in your system  
ftpd(1M) — provide Internet File Transfer Protocol (FTP) service  
ifconfig(1M) — manages network interfaces  
inetd(1M) — starts Internet servers when needed  
mkslipuser(1M) — creates or updates the Compressed Serial  
Line/Internet Protocol (CSL/IP) database  
named(1M) — provides Internet domain name service  
ping(1M) — exercises the TCP/IP network by sending Internet Control  
Message Protocol (ICMP) packets to a named host  
portmap(1M) — converts RPC program numbers into DARPA protocol  
port numbers  
remshd(1M) — invokes the remote shell server  
rexecd(1M) — server for remote executions  
rlogind(1M) — server for remote logins  
route(1M) — manipulates the routing tables  
routed(1M) — invokes the network routing daemon  
rstatd(1M) — invokes a server for kernel statistics  
rusersd(1M) — rusers invokes a server for users  
rwalld(1M) — invokes the network rwall server  
rwhod(1M) — invokes the system status server  
slattach(1M) — attaches a serial line to a network interface  
slattconf(1M) — attaches a serial line to a network interface and  
configures the network interface  
stdhosts(1M) — converts Internet addresses to standard form  
talkd(1M) — invokes the remote user communication server  
telnetd(1M) — supports the DARPA standard TELNET protocol  
trpt(1M) — prints a readable description of TCP trace records

## Tektronix 4014 terminal

4014(1) — filters text containing printer control sequences a page at a  
time  
tc(1) — interprets troff output for use at a vintage display device

## **Teletype Model 37**

`greek(5)` — graphics for the extended TTY-37 type-box

## **teletype transmission**

`tset(1)` — set or reset the terminal to a sensible state

## **TELNET**

`telnet(1C)` — communicates with another host via the TELNET protocol

`telnetd(1M)` — supports the DARPA standard TELNET protocol

## **terminal capabilities**

`300(1)` — filter text containing printer control sequences for a DASI terminal

`4014(1)` — filters text containing printer control sequences a page at a time

`450(1)` — filters text containing printer control sequences for the DASI terminal

`tput(1)` — queries `terminfo` database

`termcap(3X)` — provide terminal independent operation routines

`printcap(4)` — printer-capability database

`term(4)` — format of compiled term file

`termcap(4)` — terminal capability database

`terminfo(4)` — terminal capability database

## **terminal emulation**

`CommandShell(1)` — manages command-interpretation windows and moderates access to the A/UX console window

`vt102(7)` — provides protocols for VT102 terminals

## **terminal modes**

`stty(1)` — sets the modes for a terminal

`termio(7)` — provides a general terminal interface

## **terminal names**

`term(5)` — conventional names for terminals

## **terminal screen**

`clear(1)` — clears the terminal screen

`col(1)` — filters text containing printer control sequences for use at a display device

`colcrt(1)` — filters `nroff` output for terminal previewing

`ul(1)` — filters special underlining sequences imbedded in text for use at a display device

`curses5.0(3X)` — provides BSD-style screen functions with optimal cursor motion

`curses(3X)` — CRT screen handling and optimization package

## **terminal session**

`CommandShell(1)` — manages command-interpretation windows and moderates access to the A/UX console window

`chsh(1)` — changes the default login shell

`csh(1)` — runs the C shell, a command interpreter with C-like syntax  
`ksh(1)` — runs the Korn shell, an enhanced command interpreter that is backward-compatible with the Bourne shell (`sh`)  
`rlogin(1N)` — logs in to a remote system  
`script(1)` — starts a shell that records terminal input and output  
`sh(1)` — runs the Bourne shell  
`shl(1)` — manages the layering of multiple shells  
`telnet(1C)` — communicates with another host via the TELNET protocol  
`Login(1M)` — logs you in to A/UX by using a graphical user interface  
`vt102(7)` — provides protocols for VT102 terminals

#### **terminal settings**

`stty(1)` — sets the modes for a terminal  
`tabs(1)` — sets the tab stops on a terminal  
`getty(1M)` — set the initial communication modes, such as speed and line discipline, for the purpose of logging users in to A/UX through serial lines  
`keyset(1M)` — sets the keyboard for the console  
`gettydefs(4)` — speed and terminal settings used by `getty`  
`ioctl.syscon(4)` — console terminal settings file  
`vt102(7)` — provides protocols for VT102 terminals

#### **terminal types**

`getty(1M)` — set the initial communication modes, such as speed and line discipline, for the purpose of logging users in to A/UX through serial lines  
`termcap(3X)` — provide terminal independent operation routines  
`termcap(4)` — terminal capability database  
`terminfo(4)` — terminal capability database  
`ttytype(4)` — database of terminal types by port  
`vt102(7)` — provides protocols for VT102 terminals

#### **terminals, general**

`clear(1)` — clears the terminal screen  
`ct(1C)` — runs `login` on a dial-up line  
`greek(1)` — filters text for vintage display devices  
`last(1)` — displays login and logout times for each user of the system  
`stty(1)` — sets the modes for a terminal  
`tabs(1)` — sets the tab stops on a terminal  
`tset(1)` — set or reset the terminal to a sensible state  
`tty(1)` — obtains the device filename for the terminal or CommandShell window where it is invoked  
`tic(1M)` — compiles (translates) `terminfo` files  
`tty_add(1M)` — modify the `/etc/inittab` file in terms of enabling serial ports for use as login terminals  
`ctermid(3S)` — generate filename for terminal

dial(3C) — establishes an out-going terminal line connection  
 tcgetattr(3P) — get and set the terminal state  
 termcap(3X) — provide terminal independent operation routines  
 ttyname(3C) — find name of a terminal  
 nterm(5) — terminal driving tables for nroff  
 pty(7) — provides a pseudo terminal driver  
 termio(7) — provides a general terminal interface  
 termios(7P) — provides a A/UX® POSIX general terminal interface  
 tty(7) — controls the terminal interface  
 vt102(7) — provides protocols for VT102 terminals

**termination, process**

kill(1) — terminates a process  
 nohup(1) — runs a command so that it can continue to run even after your session has ended  
 killall(1M) — kills all active processes  
 shutdown(1M) — terminates processes that support multi-user mode and enters single-user mode  
 exit(2) — terminate process  
 abort(3C) — generates an IOT fault  
 abort(3F) — terminates a Fortran program

**testing a line printer**

lptest(1M) — generates a line-printer ripple pattern

**testing a network**

ping(1M) — exercises the TCP/IP network by sending Internet Control Message Protocol (ICMP) packets to a named host  
 lo(5) — software loopback network interface

**text, checking embedded markups for errors**

checkmm(1) — check documents formatted with the mm macros  
 checknr(1) — checks nroff/troff files  
 deroff(1) — removes nroff/troff, tbl, and eqn constructs  
 difmk(1) — marks the differences between two files  
 hyphen(1) — finds hyphenated words  
 macref(1) — produces a cross-reference listing of macro files

**text, editing**

TextEditor(1) — lets you edit files interactively through mouse and menu operations  
 bfs(1) — edits big files  
 ed(1) — edit text  
 ex(1) — edit text  
 nl(1) — processes a file through a line numbering filter  
 ssp(1) — produces single spaced output  
 vi(1) — invokes the screen-oriented (visual) display editor



**text, establishing fonts for troff typesetting**

**madev(1)** — prepares `troff` description files

**text, filtering out printer motions**

**300(1)** — filter text containing printer control sequences for a DASI terminal

**4014(1)** — filters text containing printer control sequences a page at a time

**450(1)** — filters text containing printer control sequences for the DASI terminal

**col(1)** — filters text containing printer control sequences for use at a display device

**colcrt(1)** — filters `nroff` output for terminal previewing

**greek(1)** — filters text for vintage display devices

**tc(1)** — interprets `troff` output for use at a vintage display device

**ul(1)** — filters special underlining sequences imbedded in text for use at a display device

**text, formatting and typesetting**

**daps(1)** — invokes the Autologic APS-5 phototypesetter `troff` post-processor

**enscript(1)** — converts text files to `format` for printing

**eqn(1)** — format mathematical text for `troff`

**fmt(1)** — invokes a simple text formatter

**fold(1)** — folds long lines for finite-width output device

**mm(1)** — formats documents that contain `nroff` and `mm` macro formatting requests

**mmt(1)** — typeset documents that contain `troff` and `mm` or `mv` macro-formatting requests

**mvt(1)** — typeset documents that contain `troff` and `mm` or `mv` macro-formatting requests

**neqn(1)** — formats mathematical text for `nroff`

**newform(1)** — changes the format of a text file

**nroff(1)** — text formatter

**otroff(1)** — formats text for a specific phototypesetter

**pr(1)** — formats text for a print device

**psdit(1)** — converts `troff` intermediate format to POSTSCRIPT format

**psroff(1)** — formats a file through `troff` so it can be printed on a POSTSCRIPT printer

**roffbib(1)** — prints out all records in a bibliographic database

**tbl(1)** — table formatter for `nroff` or `troff`

**troff(1)** — formats and typesets files

**text lines, filling and wrapping**

**fmt(1)** — invokes a simple text formatter

**fold(1)** — folds long lines for finite-width output device

### text lines, processing

`awk(1)` — scans a file for lines that match a specific pattern  
`colrm(1)` — removes columns from a file  
`comm(1)` — selects or rejects lines common to two sorted files  
`cut(1)` — cuts out selected fields of each line of a file  
`grep(1)` — search a file for a specific pattern  
`head(1)` — displays the first few lines of a file  
`join(1)` — combines (joins) two relational files  
`line(1)` — reads one line from the standard input  
`newform(1)` — changes the format of a text file  
`nl(1)` — processes a file through a line numbering filter  
`paste(1)` — merges lines of several files or subsequent lines of one file  
`rev(1)` — reverses characters within each line of text  
`sed(1)` — edits a stream of data  
`sort(1)` — sorts or merges files  
`tail(1)` — displays the last part of a file  
`uniq(1)` — reports repeated lines in a file  
`wc(1)` — counts characters, words, and lines in a file

### text, preprocessing before formatting and typesetting

`cw(1)` — prepare constant-width text for `otroff`  
`eqn(1)` — format mathematical text for `troff`  
`grap(1)` — invokes a `pic` preprocessor for drawing graphs  
`neqn(1)` — formats mathematical text for `nroff`  
`pic(1)` — preprocesses `troff` files that contain drawings  
`soelim(1)` — eliminates the source commands from `nroff` input  
`tbl(1)` — table formatter for `nroff` or `troff`

### text, processing of tabs within

`expand(1)` — expand tabs to spaces, and vice versa  
`newform(1)` — changes the format of a text file

### text processor

`awk(1)` — scans a file for lines that match a specific pattern  
`col(1)` — filters text containing printer control sequences for use at a display device  
`comm(1)` — selects or rejects lines common to two sorted files  
`cpp(1)` — invokes the C language preprocessor  
`daps(1)` — invokes the Autologic APS-5 phototypesetter `troff` post-processor  
`deroff(1)` — removes `nroff/troff`, `tbl`, and `eqn` constructs  
`eqn(1)` — format mathematical text for `troff`  
`expand(1)` — expand tabs to spaces, and vice versa  
`fmt(1)` — invokes a simple text formatter  
`fold(1)` — folds long lines for finite-width output device  
`grap(1)` — invokes a `pic` preprocessor for drawing graphs  
`iw2(1)` — prepares data to be printed on the Apple ImageWriter II printer

m4(1) — processes macros for C and other languages  
neqn(1) — formats mathematical text for nroff  
pic(1) — preprocesses troff files that contain drawings  
pr(1) — formats text for a print device  
rev(1) — reverses characters within each line of text  
sed(1) — edits a stream of data  
sort(1) — sorts or merges files  
ssp(1) — produces single spaced output  
tabs(1) — sets the tab stops on a terminal  
tbl(1) — table formatter for nroff or troff  
tr(1) — translates characters  
uniq(1) — reports repeated lines in a file

#### **text, searches**

freq(1) — reports character frequencies in a file  
grep(1) — search a file for a specific pattern  
lookbib(1) — finds references in a bibliography  
wc(1) — counts characters, words, and lines in a file

#### **text, transforming**

awk(1) — scans a file for lines that match a specific pattern  
m4(1) — processes macros for C and other languages  
sed(1) — edits a stream of data  
tr(1) — translates characters

#### **text, utilities for generating and spell checking**

addbib(1) — creates or extends a bibliographic database  
diction(1) — locate wordy sentences in a document  
indxbib(1) — builds an inverted index for a bibliography  
ndx(1) — creates a subject-page index for a document  
ptx(1) — generates a permuted index  
refer(1) — finds and inserts literature references in documents  
sortbib(1) — sorts bibliographic database  
spell(1) — find spelling errors  
style(1) — analyzes the surface characteristics of documents  
subj(1) — generates a list of subjects from documents

#### **TFTP (Trivial File Transfer Protocol)**

tftp(1C) — transfers files via the Trivial File Transfer Protocol (TFTP)  
tftpd(1M) — responds to requests to use the DARPA Trivial File  
Transfer Protocol

#### **three-byte integers**

l3tol(3C) — convert between 3-byte integers and long integers

#### **tic-tac-toe**

ttt(6) — play the game of tic-tac-toe

### **time and date**

`cal(1)` — displays a calendar  
`calendar(1)` — provides a reminder service  
`date(1)` — displays and sets the date  
`leave(1)` — reminds you when you have to leave  
`cron(1M)` — runs the clock daemon  
`settimezone(1M)` — sets the local time zone  
`gettimeofday(2)` — get/set date and time  
`stime(2)` — set time  
`time(2)` — get time  
`ctime(3)` — convert date and time to ASCII  
`tzfile(4)` — time-zone information  
`nvram(7)` — provides an interface to nonvolatile memory

### **time zones**

`settimezone(1M)` — sets the local time zone  
`tzdump(1M)` — displays the date and time for one or more time zones  
`tzic(1M)` — compiles time-zone information files that are required to set the local time-zone  
`tzfile(4)` — time-zone information

### **timers**

`leave(1)` — reminds you when you have to leave  
`getitimer(2)` — get/set value of interval timer

### **toolbox, Macintosh**

`slots(3X)` — provides ROM library functions

### **topological sorting**

`tsort(1)` — sorts lines in a file topologically

### **tracing**

`trpt(1M)` — prints a readable description of TCP trace records  
`ptrace(2)` — process trace

### **TranScript®**

`transcript(1M)` — filter data for the POSTSCRIPT printers

### **transferring files**

`cpio(1)` — copies files to or from a `cpio` archive  
`cu(1C)` — establishes an interactive connection with another system  
`ftp(1N)` — transfers files by using the DARPA Internet File Transfer Protocol (FTP)  
`kermit(1C)` — invokes the Kermit file-transfer program  
`pax(1)` — copies files to or from an archive in an IEEE format  
`rcp(1C)` — copies files between two systems  
`remsh(1N)` — invokes to a shell on a remote system  
`tar(1)` — copies files to or from a `tar` archive  
`tftp(1C)` — transfers files via the Trivial File Transfer Protocol (TFTP)  
`tip(1C)` — establishes a connection to a remote system  
`updater(1)` — updates files between two machines

uucp(1C) — copies files from one system to another system  
uuencode(1C) — encode and decode a binary file  
ftpd(1M) — provide Internet File Transfer Protocol (FTP) service  
tftpd(1M) — responds to requests to use the DARPA Trivial File  
Transfer Protocol  
uucico(1M) — transfers files as specified by uucp work files

#### translators

tr(1) — translates characters  
uuencode(1C) — encode and decode a binary file  
conv(3C) — translate characters  
number(6) — converts Arabic numerals to English

#### Transliterate Protocol Trace

trpt(1M) — prints a readable description of TCP trace records

#### trigonometry

acos(3F) — Fortran arccosine intrinsic function  
asin(3F) — Fortran arcsine intrinsic function  
atan2(3F) — Fortran arctangent intrinsic function  
atan(3F) — Fortran arctangent intrinsic function  
cos(3F) — Fortran cosine intrinsic function  
sin(3F) — provide Fortran sine intrinsic functions  
tan(3F) — Fortran tangent intrinsic function  
trig(3M) — provide trigonometric functions

#### Trivial File Transfer Protocol

tftp(1C) — transfers files via the Trivial File Transfer Protocol (TFTP)  
tftpd(1M) — responds to requests to use the DARPA Trivial File  
Transfer Protocol

#### troff

checknr(1) — checks nroff/troff files  
cw(1) — prepare constant-width text for otroff  
deroff(1) — removes nroff/troff, tbl, and eqn constructs  
diffmk(1) — marks the differences between two files  
eqn(1) — format mathematical text for troff  
makedev(1) — prepares troff description files  
mm(1) — formats documents that contain nroff and mm macro  
formatting requests  
mmt(1) — typeset documents that contain troff and mm or mv macro-  
formatting requests  
mvt(1) — typeset documents that contain troff and mm or mv macro-  
formatting requests  
otroff(1) — formats text for a specific phototypesetter  
pic(1) — preprocesses troff files that contain drawings  
psdit(1) — converts troff intermediate format to POSTSCRIPT format  
psroff(1) — formats a file through troff so it can be printed on a  
POSTSCRIPT printer

soelim(1) — eliminates the source commands from `nroff` input  
 tbl(1) — table formatter for `nroff` or `troff`  
 tc(1) — interprets `troff` output for use at a vintage display device  
 troff(1) — formats and typesets files  
 eqnchar(5) — special character definitions for `eqn` and `neqn`  
 font(5) — description files for device-independent `troff`  
 mptx(5) — the macro package for formatting a permuted index  
 ms(5) — text formatting macros  
 troff(5) — description of `troff` output language

**true and false**

test(1) — evaluates conditions  
 true(1) — provides truth values

**truncation**

truncate(2) — truncate a file to a specified length

**tuning**

kconfig(1M) — tunes kernel parameters for work-load optimization

**types, data**

ftype(3F) — explicit Fortran type conversion  
 xdr(3N) — provide library routines for external data representation  
 types(5) — primitive system data types

**UFS**

newfs(1M) — makes a Berkeley 4.2 (UFS) file system  
 tuneufs(1M) — tunes a Berkeley 4.2 (UFS) file system  
 ufs(4) — UFS file-system format

**underlining**

ul(1) — filters special underlining sequences imbedded in text for use at a display device

**UNIX-to-UNIX system communications**

uucp(1C) — copies files from one system to another system  
 uuencode(1C) — encode and decode a binary file  
 uuglist(1C) — displays the service grades that are available on your system  
 uulog(1C) — displays information about `uucp` file transfers  
 uuname(1C) — displays the names of systems to which `uucp` and `cu` can connect  
 uusend(1C) — sends a file to a remote host  
 uustat(1C) — controls `uucp` jobs and provides status information  
 uuto(1C) — provide an easy interface to the `uucp` command, using the public directories  
 uux(1C) — runs a command on a remote system  
 Uutry(1M) — contacts a remote system with debugging on  
 uucheck(1M) — checks the `uucp` directories and files  
 uucico(1M) — transfers files as specified by `uucp` work files  
 uucleanup(1M) — removes old files from the `uucp` spool directory

`uucpd(1M)` — handles the transfer of files by `uucico` over TCP/IP connections  
`uudemon.admin(1M)` — mails current `uucp` work status to the `uucp` administrator  
`uudemon.cleanup(1M)` — cleans up files in the `uucp` spool directory  
`uudemon.hour(1M)` — processes spooled `uucp` requests  
`uudemon.poll(1M)` — sets up polling for selected systems  
`uusched(1M)` — schedules `uucp` file transfers  
`uuxqt(1M)` — handles requests from remote systems to run commands

#### **unmounting file systems**

`umount(2)` — unmount a file system  
`unmount(2)` — remove a file system  
`umount(3)` — unmounts a file system

#### **updaters**

`make(1)` — maintains, updates, and regenerates groups of files  
`rdist(1)` — distributes remote files  
`sync(1)` — updates the superblock  
`touch(1)` — updates access and modification times of a file  
`updater(1)` — updates files between two machines  
`badblk(1M)` — sets or updates bad block information  
`dp(1M)` — performs disk partitioning  
`eu(1M)` — updates autorecovery files  
`eupdate(1M)` — updates important files for autorecovery purposes  
`yppush(1M)` — propagates changed Network Information Service (NIS) maps  
`sync(2)` — update superblock  
`yppasswd(3N)` — updates a user password on the Network Information Service (NIS) master server  
`bzb(4)` — Block Zero Block file format

#### **user accounts**

`chfn(1)` — changes the real-name field of your password file entry for use by `finger`  
`chsh(1)` — changes the default login shell  
`finger(1)` — displays information about the users on a system  
`fingerd(1M)` — handles requests from remote systems for user information from `finger`

#### **user IDs**

`setuid(2)` — set user and group ID  
`getpw(3C)` — gets a name from UID

#### **user interface, choosing**

`CommandShell(1)` — manages command-interpretation windows and moderates access to the A/UX console window  
`chsh(1)` — changes the default login shell  
`Login(1M)` — logs you in to A/UX by using a graphical user interface

### **user interface, Macintosh**

`cmdo(1)` — builds command lines interactively  
`macquery(1M)` — posts a Macintosh alert box to query the user

### **user names**

`cuserid(3P)` — gets a character login name of the user  
`cuserid(3S)` — gets a character login name of the user

### **users, general**

`finger(1)` — displays information about the users on a system  
`groups(1)` — displays group memberships  
`id(1)` — displays user and group IDs and names  
`last(1)` — displays login and logout times for each user of the system  
`logname(1)` — gets the login name  
`rusers(1N)` — produces a login list for local machines (RPC version)  
`rwho(1N)` — displays a list of the active users from all of the systems on the local network  
`su(1)` — substitutes user ID  
`talk(1N)` — talks to another user via the terminal  
`users(1)` — reports a list of the users who are logged on to the system  
`w(1)` — displays a summary of the current system activity  
`who(1)` — reports users who are currently logged in to the system  
`whoami(1)` — prints effective current user ID  
`adduser(1M)` — adds a user account  
`fingerd(1M)` — handles requests from remote systems for user information from `finger`  
`mkslipuser(1M)` — creates or updates the Compressed Serial Line/Internet Protocol (CSL/IP) database  
`rusersd(1M)` — `rusers` invokes a server for users  
`rwall(1M)` — writes to all users over a network  
`rwall(1M)` — invokes the network `rwall` server  
`talkd(1M)` — invokes the remote user communication server  
`wall(1M)` — writes to all users  
`whodo(1M)` — informs you of the current system activity  
`getuid(2)` — get real and effective user IDs and group IDs  
`setreuid(2)` — set real and effective user ID  
`setsid(2P)` — create session and set process group ID  
`setuid(2)` — set user and group ID  
`cuserid(3P)` — gets a character login name of the user  
`cuserid(3S)` — gets a character login name of the user  
`logname(3X)` — return login name of user  
`rnusers(3N)` — return information about users on remote machines  
`ttyslot(3C)` — finds the slot in the `utmp` file of the current user  
`slip.user(4)` — database of available Compressed Serial Line/Internet Protocol (CSL/IP) connections



## UTMP file

- getut(3C) — access a utmp file entry
- ttyslot(3C) — finds the slot in the utmp file of the current user
- utmp(4) — utmp and wtmp entry formats

## UUCP

- uucp(1C) — copies files from one system to another system
- uuencode(1C) — encode and decode a binary file
- uuglist(1C) — displays the service grades that are available on your system
- uulog(1C) — displays information about uucp file transfers
- uuname(1C) — displays the names of systems to which uucp and cu can connect
- uusend(1C) — sends a file to a remote host
- uustat(1C) — controls uucp jobs and provides status information
- uuto(1C) — provide an easy interface to the uucp command, using the public directories
- uux(1C) — runs a command on a remote system
- Uutry(1M) — contacts a remote system with debugging on
- uucheck(1M) — checks the uucp directories and files
- uucico(1M) — transfers files as specified by uucp work files
- uucleanup(1M) — removes old files from the uucp spool directory
- uucpd(1M) — handles the transfer of files by uucico over TCP/IP connections
- uudemon.admin(1M) — mails current uucp work status to the uucp administrator
- uudemon.cleanup(1M) — cleans up files in the uucp spool directory
- uudemon.hour(1M) — processes pooled uucp requests
- uudemon.poll(1M) — sets up polling for selected systems
- uusched(1M) — schedules uucp file transfers
- uuxqt(1M) — handles requests from remote systems to run commands

## variables, system

- kconfig(1M) — tunes kernel parameters for work-load optimization
- sysconf(3P) — gets configurable system variables

## version control

- admin(1) — creates and administers SCCS files
- cdc(1) — changes the delta commentary of an SCCS delta
- ci(1) — checks in RCS revisions
- co(1) — checks out RCS revisions
- comb(1) — combines SCCS deltas
- delta(1) — makes a delta (change) to an SCCS file
- get(1) — gets a version of an SCCS file
- help(1) — provides help information about SCCS commands and messages
- prs(1) — displays information about an SCCS file

`racs(1)` — creates new RCS files or changes attributes of existing RCS files  
`racsdiff(1)` — compares RCS revisions  
`racsintro(1)` — introduces RCS commands  
`racsmerge(1)` — merges two versions of an RCS file  
`rlog(1)` — displays log messages and other information about RCS files  
`rmdel(1)` — removes a delta from an SCCS file  
`sact(1)` — displays who has checked a Source Code Control System (SCCS) file out for editing  
`sccs(1)` — performs SCCS subsystem commands  
`sccsdiff(1)` — compares two versions of an SCCS file  
`unget(1)` — undoes a previous get of an SCCS file  
`val(1)` — validate SCCS file  
`vc(1)` — manipulates version control information inside a data stream  
`version(1)` — reports version number of files  
`what(1)` — reports identification information for a file  
`sccstorcs(1M)` — builds an RCS file from an SCCS file

#### **version control, RCS**

`ci(1)` — checks in RCS revisions  
`co(1)` — checks out RCS revisions  
`racs(1)` — creates new RCS files or changes attributes of existing RCS files  
`racsdiff(1)` — compares RCS revisions  
`racsintro(1)` — introduces RCS commands  
`racsmerge(1)` — merges two versions of an RCS file  
`rlog(1)` — displays log messages and other information about RCS files

#### **version control, SCCS**

`admin(1)` — creates and administers SCCS files  
`cdc(1)` — changes the delta commentary of an SCCS delta  
`comb(1)` — combines SCCS deltas  
`delta(1)` — makes a delta (change) to an SCCS file  
`get(1)` — gets a version of an SCCS file  
`help(1)` — provides help information about SCCS commands and messages  
`prs(1)` — displays information about an SCCS file  
`rmdel(1)` — removes a delta from an SCCS file  
`sact(1)` — displays who has checked a Source Code Control System (SCCS) file out for editing  
`sccs(1)` — performs SCCS subsystem commands  
`sccsdiff(1)` — compares two versions of an SCCS file  
`unget(1)` — undoes a previous get of an SCCS file  
`val(1)` — validate SCCS file  
`vc(1)` — manipulates version control information inside a data stream  
`what(1)` — reports identification information for a file  
`sccstorcs(1M)` — builds an RCS file from an SCCS file

**view graphs**

`mvt(1)` — typeset documents that contain `troff` and `mm` or `mv` macro-formatting requests

`mv(5)` — a `troff` macro package for typesetting viewgraphs and slides

**windows**

`CommandShell(1)` — manages command-interpretation windows and moderates access to the A/UX console window

**word breaks**

`hyphen(1)` — finds hyphenated words

**word counting**

`wc(1)` — counts characters, words, and lines in a file

**worms**

`worm(6)` — plays the game of growing worm

`worms(6)` — plays the game of worms

**writing**

`write(2)` — write on a file

**wumpus**

`wump(6)` — plays the game of hunt-the-wumpus

**Xerox 1700 terminal**

`450(1)` — filters text containing printer control sequences for the DASI terminal

**yes (reply to queries)**

`yes(1)` — generates *y* entries in response to requests for input

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